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VOL. XVII

DECEMBER, 1919.

No. 12.

THE DRUG ADDICT QUESTION.

Recognition of the evils and wide distribution of drug addiction has advanced to the point where we are witnessing various governmental efforts to control the use of habit-forming drugs. That these efforts have not met with adequate success is demonstrated by the problems now appearing of the care and criminality of drug addicts who are hampered under the law in procuring a sufficient supply of the drug to keep them comfortable, law-abiding and productive workers. Illicit drug dealers are profiteering to a huge extent among these unfortunates and thus creating a situation still further operating to cause criminality, suffering and social inefficiency.

An attempt is being made to meet these problems through the medium of municipal drug clinics, operated under the local Board of Health, where addicts may obtain at a fair and near cost price the actual amount of drug necessary to keep them more or less useful citizens and to prevent their suffering. Such clinics have been extensively discussed and tried in the last few months, notably in New Orleans, and New York City, and are the subject of experiment in Los Angeles and of discussion in San Francisco. The problem is very definite. It is worth while inquiring whether more stringent enforcement of the present law is needed or whether any other law would operate to better effect in the particular of reducing the number of drug addicts. Clinics and similar measures designed for alleviation or cure are only a stop-gap and in no sense get at the root of the evil. Can the present laws be better enforced so that illicit drug purveyors can be abolished? If not, would any new law be more effective? These questions must receive first answer.

As pointed out by Dr. Lengfeld last month in the Department of Pharmacy and Chemistry in the JOURNAL, it is questionable whether the medi-

cal profession is really responsible for any large proportion of drug addicts. This article (page 415, November issue) is strongly commended to your attention for rereading now. Vigorous, unremitting and determined prosecution and persecution of illicit drug peddlers would do more to remove the evil than any set of regulations pertaining to the administration of narcotics by physicians. It may be said in this connection also that the greater proportion of drug addicts contract the habit by association and imitation. Careful investigation recently of a long series of addicts at Bellevue Hospital showed that only about 4 per cent. contracted the habit through the prescriptions of unscrupulous doctors. The Public Health Service estimates that there are not over 175,000 addicts in the entire country. There is no definite proof that the evil is growing or spreading. Investigation of this point is much needed.

New York City has instituted a department for drug addiction at the Riverside Hospital capable of accommodating 523 men and 100 women. In a little more than the first month, more than 500 addicts had been taken off the drug and about 200 had been returned to their homes as cured. The method in brief is the reduction of the drug on admission to from 1 1-3 to 3 grains of morphine daily. Morphine is given regardless of the nature of the addiction, which in 99 per cent. of the cases was heroin. After four or five days, the patient is put under hyoscine anesthesia by hypodermic and the drug entirely withdrawn. The importance of after-care and moral stamina is recognized. A "cure" does not mean drug-withdrawal alone. It can only be a true cure when the victim has gained enough self-confidence and will-power to avoid and resist the associations and suggestions which would lead him back to the drug.

In the reports at hand from New Orleans, the attempt is made apparently only to provide the addicts with their drug at a fair price and thus do away with the illicit drug peddler, who is, as stated above, the crux of the whole problem. Such a plan does not seem advisable on its face. There is nothing to prevent the addict securing as much additional dope from the illicit dealer as he can pay for. There is no promise of cure in any plan separated from hospital or institutional restraint and medical treatment. And if there is no immediate urge to definite cure, it is hard to see what has been accomplished but some more or less sentimental and ill-founded temporary relief for the addicts. Any successful method must go deeper than this.

The drugs most used in New York were the opium alkaloids and derivatives. These are too valuable to mankind and animalkind to be abolished from human and medical use. Not the physician, but the illicit drug purveyor, should be penalized and put out of business. Heroin can be spared and its manufacture prohibited. Drug addict clinics may give splendid results if institutional treatment and cure is the one end and consideration in their operation. Such clinics coupled with a determined administration of the present law, and relentless penalizing of illicit drug dealers, seems the best path of advance in the case of this serious problem. There is no occasion for undue hysteria, however. The menace of drug addiction may be as great a social evil as some claim for it. We have yet to see authoritative proofs of a greater distribution than that noted above by the Public Health Service.

IMPORTANT ANNOUNCEMENT.

In the January number the Journal will open a Hospital Service Section. In each issue of the Journal during 1920 we will present hospital hints and brief timely articles and practical suggestions on construction, administration and the scientific and community service that hospitals should render.

This constructive service of the Journal, beginning with the New Year, will be helpful to the hospitals, beneficial to the patients and public and valuable to every ethical member of the medical profession.

We have an intimate and abiding interest in promoting the welfare and enlarging the field of service of all the institutions of our State, large or small, that are worthy to be called hospitals.

Hospital improvement is essential to the progress of scientific medicine. The profession has realized for some time that some hospitals were not keeping step with the onward march and that others were not filling the functions of real hospitals. Few hospitals, however, are devoted to their defects and most are anxious and ready to remedy them.

The imperative need and the vast field for improvement in hospital service have impressed all who are giving this great subject thoughtful attention. We will endeavor, in a broad co-operative spirit, to supply a portion of this imperative need and fill a part of this vast field with concrete facts. The purpose of the Journal's Hospital

Service Section will be to make a practical contribution to hospital betterment by presenting the factors that must be combined to make progressive hospitals more efficient and serviceable.

JUSTICE VERSUS "SCIENCE."

Statements made by Justice Wilbur lauding the achievements of modern medicine have been hastily followed by a resentful reply from Peter V. Ross, the official guardian of Christian Science Publicity.

Mr. Ross demurs to all the conclusions of Justice Wilbur in reference to medical conquests and makes the amazing counter statement that during the influenza pandemic, "Christian Science quietly healed thousands who turned to it for help, while modern medicine stood by helpless, ignorant alike of the cause, cure and prevention of the malady."

Mr. Ross strangely accepts the medical testimony that an epidemic existed, and the medical diagnosis that it was influenza. His indefinite statement of thousands would be more conclusive if he offered definite morbidity and mortality statistics.

Who has the records on which he bases the statement of "healing thousands?"

Of course, "the healing" was done "quietly" and the records are quiescent. But Mr. Ross seems to forget that unless matter exists there could not have been anything the matter with these thousands.

Mr. Ross advances a new theory of immunity in attacking Justice Wilbur's position. "In his age," says Mr. Ross, "the American Indian lived by swamps and other breeding places of germs in blissful ignorance of their reputed deadliness and hence with complete immunity from their attacks. The Asiatic of today repeats the Indian experience. But when medical institutes acquaint him with the fancied danger of his ways of living, without affording him any adequate prevention or remedy, his troubles will begin, not however, because of germs, for he now grows fat on them, but through his newly acquired fear of them."

The absurd theory of complete immunity accompanying "blissful ignorance" was sadly shattered when little Peter playfully poked fire with a stick of dynamite.

Another astounding statement of Mr. Ross, that can only be explained on the basis of his blissful ignorance of sanitation, is "wholesome sanitation has no connection with medicine."

Mr. Ross becomes queerly facetious in referring to Luke, "the beloved physician," "standing at attention with his medicine chest," but not lending first aid.

Mr. Ross should tell such stories to the marines, to our soldiers of the world war, to the Red Cross forces who know the value of modern medicine. Mr. Ross doubtless claims that "Christian Science" quietly healed thousands of those who were wounded and sick in the war without any material means and by the same methods "demonstrated as effective during the 'Flu'."

There is no record of any of our fighting forces using or recommending Mrs. Eddy's "scientific"

remedy even for a boil. Her explanation, however, of a boil to a soldier who had one would either arouse his fighting blood or make him laugh until he burst it. "You say," Mrs. Eddy remarks, "a boil is painful, but that is impossible, for matter without mind is not painful. The boil simply manifests, through inflammation and swelling, a belief in pain, and this belief is called a boil."

Without any intention of following Mr. Ross through his theological and scriptural wanderings, his frequent repetition of "Heal the sick" as the main mission of Jesus leads us to remind Mr. Ross, that though firmly believing in the regular operation of natural laws, the scientific medical men do not deny the possibility of the supernatural, but wherever and whenever the natural laws have been suspended on exceptional occasions by Divine power, they have later resumed their regular course.

All those that were healed or raised from the dead by Jesus are now dead. Lazarus and the daughter of Jairus, the servant of the centurion and the widow's son, those sick of the palsy and the lepers. The withered hand that was healed is pulseless now, and the blind and dumb that were given sight and speech—see nor speak no more. And the man who was possessed of a legion of devils, that were driven out of him into the herd of swine, is no longer publishing in Decapolis how great things Jesus had done for him.

In reading the gospel account of this driving the legion of unclean spirits into the herd of swine, Mr. Ross must experience great difficulty in justifying this biblical reference to animal experimentation and exploitation for the sake of mankind. Here we find "a great herd of swine" peacefully feeding on the mountain side destroyed with great violence without an anesthetic and without consulting or remunerating the owners. This great herd was destroyed that one man might be relieved.

When the apostles were sent forth they were told not only to heal the sick, but they were also instructed to raise the dead and not to possess gold or silver nor money in their purses.

If the "Eddian Scientists" could demonstrate their skill as effectively in raising the dead as they do in raising funds the cemeteries would soon be depopulated.

CHEERFUL NONSENSE.

A little nonsense now and then is good for the best of doctors. It is peculiarly appropriate therefore, that our old friend the Los Angeles Times, should continue each week to furnish amusement for the public and ribald mirth for the doctors with its page entitled "Care of the Body." It is a pity that these gems cannot appear in Medical Pickwick or some medium where they would be available for the delectation of the medical fraternity of the entire country. Truly such engaging buffoonery and artless as well as science-less prattlings should have no limitations on their mirth-provoking excellencies. It is a pity that some small part of the general public is possibly not in sufficiently close touch with the march of the modern world to appreciate the delectable feast

here spread to their use. Mirth prolongs life and the countless years of human life which have been added to the fortunate readers of this "Care of the Body" department by its resistless incentives to laughter, certainly make it a valuable public health agency.

Space forbids that we should present all the good points so freely offered. The medical brethren of the south are to be congratulated on having so polished and accurate a writer as Harry Ellington Brook, N. D., to serve up to them their Sunday fun. It must be an inspiration to have an "N. D." in town. Sort of stimulating to the imagination. The letters could mean so many things.

For instance, recently we read that life has been shortened by civilization, starvation, foods, drugs and serums. Syphilization has doubtless been overlooked and the oracle does not explain how the concatenation of foods and starvation is effected. Then we read that oiling the skin keeps the body supple. The fountain of youth is not to be found in a bottle or in the carcass of an animal. High blood pressure is high gas pressure, due to fermentation of food in the colon. That is due to wrong eating. Today doctors, so we read, know more about diagnosis, but little more than formerly about causes and treatment. Verily, let not this man sit at the table of the wise, lest he should eat, and learn and our pleasure be gone.

Again we read that all pus appendices if left alone will drain down naturally through the bowel and heal themselves. What a lot of unnecessary work and bother we have been to! Moreover, doctors wish the return of the flu to make more business for themselves. If we did not know human nature and the human public so well, that might arouse resentment, but we know the reader reads to be amused and will not lay any serious intention up against the writer, the said N. D. We learn that the California anti-vivisection society discussed three "issues" in long-suffering Los Angeles, which three were these: 1. Determination to suppress vivisection in hospitals of religious organizations whose precepts forbid the killing of inoffensive animals. Must refer to Buddhism, as Judaism, Christianity and so-called western religious faiths are based on the very contrary. 2. Support of a bill in the Senate forbidding use of dogs in vivisection. Until we know just what is meant by dogs and vivisection, this is ambiguous. 3. Plans to circulate an initiative petition next January to stop vivisection in California. These worthy aims would be complemented and reach full fruition in an ordinance making it illegal to be ill or to die. Too bad the N. D. did not think of this too, but here is the suggestion for what it is worth.

N. D. also considers that "boards of health" should be called "disease boards," as "What do they teach about health?" Serums, candy and cigarettes caused far more disease than all the war casualties endured by our soldiers. We have wondered what did it. Here is the answer. Candy is worse than tobacco or alcohol, because it produces alcohol in the stomach and sours the blood. Our head whirls a little here and we wish N. D. had given the page and volume reference so we

could look up the details. Since he has established this fact, however, it is plain that we do not need vivisection any longer, as such scientific data could hardly have been obtained without vivisection.

N. D. says that the Wassermann test is often positive with no syphilis but merely an acid blood. "What can you expect of 'laymen' when the U. S. Army Health Service gives such rotten advice?"

Right along on the same page we read one of the most entertaining bits of the entire page. It seems to be an advertisement but is doubtless simply a joke made funnier by such juxtaposition. It says the Raw Food Dining Room is the only restaurant serving no salt, sugar or vinegar. It will doubtless so continue! It says all this is "very delicious to the unperverted palate." Would that we had an unperverted palate! What pleasures we are missing! Then there is "Nature's cure for rupture," and a splendid remedy for cancer, and "hysto" for nerves, and a grand boost for chiropractic which is five times more efficient than osteopathy and twenty times more efficient than drugs, and if you cannot afford to pay, they will chiropractic on you free for nothing, and there is no escaping them. Asthma, of course, is remembered with a sure cure, and weak feet—but perhaps these last had been bathed too much.

So all in all, we are edified and amused and now we wipe away the joyful tears and turn again to serious matters.

LOS ANGELES AND SAN FRANCISCO PHYSICIANS SKIP THIS.

The Journal will endeavor to serve the interests of the average doctor outside the larger cities by devoting whatever space is necessary to short summarized case reports of usual or unusual cases occurring in the actual practice of any doctor outside the cities of Los Angeles and San Francisco. Send them in. Any case that is of special interest to you. Any case that you would like to have discussed from the standpoint of diagnosis, treatment or in any other way. No bibliography, no "literature," just the concise description of the case. Your name will not be published. Only the case record will appear. With it will be such discussion as any one wishes to offer.

Cases presented one month will be open for discussion the following month. If you, the doctors of the State, will take hold of this subject, you can make it one of the most valuable and interesting features of the Journal. It will depend on you. The editor assumes no responsibility. If you do not want it, send no case reports and it will not trouble you. If you do want it, if you think you can get some advantage of consultation and discussion on cases in your own actual practice, send them in at once and as often as you can. Remember, no formal article or long-winded résumé. Just the case itself, and, if you wish, a request for discussion of the thing that baffles or interests you. Your name will not appear (unless you specifically request it). The editor will see that each case is discussed, no names mentioned, by at least one authority in the department involved. Everyone

who wishes may discuss any case printed, if he makes his discussion short and to the point. Send them in. For the January issue, have your case reports in the Journal office by December 10.

MINIMUM WAGE FOR OFFICE WORKERS.

The State Industrial Welfare Commission, under date of June 20, 1919, issued an order affecting the minimum wage lawful to be paid women and minors. This is set at \$13.50 per week, and includes workers in professional offices. The only exceptions to this rule apply to learners who, under certain conditions, may receive smaller wages. The total proportion of learners to all women employed shall not be greater than 33 1-3 per cent.

For part time work, adult women shall receive not less than \$2.25 per day or not less than \$0.35 per hour if employed less than six hours daily. Every employer of women or minors must keep a record in approved form of names, addresses, hours worked and amounts earned, of such employees. No woman or minor may be employed for more than eight hours in one day, for more than forty-eight hours in one week, or for more than six days in one week. They shall be entitled to one day's rest in seven and shall not work before 6 a. m., or after 10 p. m. A minor is a person of either sex under 18 years of age.

Physicians should take due notice of this order and govern themselves accordingly.

LIABILITY OF PATIENT FOR ACCIDENT TO NURSE.

In the case of Lottie C. Bethune vs. W. J. Logan before the State Industrial Accident Commission, the question was raised as to who was the employer of the nurse, and hence liable for compensation in the case where the nurse fell and broke her leg. The Commission decided that the patient in this case, was the employer and hence liable for compensation, and not the hospital. No new interpretation of the law was involved, but simply the determination of fact in this particular case. Various interesting speculations are aroused, however, as to liability of patients as employers. For instance is the physician in this sense an employee of the patient?

EDITORIAL COMMENT.

Recent work by Sugiura & Benedict¹ suggests that the therapeutic effect of radium on neoplasms may be due, at least in part, to the destruction of growth-promoting vitamins.

Dr. W. J. Hanna, Health Officer of Sacramento, calls attention, in reference to the statement in the JOURNAL in May that the maternity service of the Los Angeles health department was the only one in the United States of similar nature, to the fact that Sacramento has such an organization with a welfare nurse and a ward in the City Emergency Hospital.

¹ J. Bio. Chem., Oct. 1919.

Special Article

NOTES ON ENCEPHALITIS LETHARGICA IN SAN FRANCISCO.

By PHILIP KING BROWN, San Francisco.

Encephalitis Lethargica has made its appearance on the Pacific Coast in numbers sufficient to emphasize the epidemic character of the disease, and in a guise that frequently detracts attention from the chief characteristics of the disease as thus far described.

Ophthalmoplegia, blurred vision, listlessness or stupor, a droop of one or both lids, distorted facial muscles, spastic, tremulous, slow movements, difficult urination, increased or absent knee and patella reflexes, fever, absence of leucocytosis, and slight increase in spinal fluid cell count (mononuclear forms), have marked most of the cases. The stuporous state may be so deep that patients cannot be aroused. The death rate is forty per cent. Pain has not been reported as a conspicuous symptom, and is referred to as wanting by nearly all writers.

The cases that have passed under my observation since August 24, when the first one was brought to San Francisco from Reno, Nevada, have presented a range of symptoms marked by a variation, from an *extremely prolonged cycle covering from four to six months*, to several where death has ensued in four to eight days. The acute cases have presented all characteristic symptoms of the classical disease to which has been added in the majority shooting pains of agonizing nature accompanied by muscular spasm. The pain is not always in the part involved in the spasm, although most commonly so, and the pain may cease long before the spasm.

The following brief abstracts are given, by no means representing a complete study of the cases, but serving to show the protean nature of the symptoms.

H., J. E. Age 46. Locomotive engineer. Entered hospital August 25, 1919. Illness began with headache, nausea, general malaise, weakness on left side of body, some incontinence of urine, marked constipation, stiffness of back. Some pain in left hypochondriac region (localized). Patient states (two weeks later) that he thinks it all due to exposure and heat while at work. Patient in stuporous condition, aroused only with difficulty. Answers questions slowly and in a dazed way. Pupils pin point, equal, react to light and accommodation. Neck: very little tenderness and stiffness; some rigidity and stiffness of back. Kernig's sign: negative. Reflexes: K. K. plantar, triceps, biceps and periosteal-radial, active. Delirious at night. Threatened to kill night nurse. Wife reports patient has been doing irrational things for one year. Urinates on floor at night. Cannot be made to understand what to do. Moody and depressed. For last year has slept inordinately, i. e., all day after sleeping well at night. Wassermann:

negative on blood and spinal fluid. No evidence of brain inflammation, no abnormality in C. S. fluid except 32 cell count and plus pressure. No nystagmus. For a few days complained of dizziness chiefly when head is turned up and back to right, although any sudden movement of eyes brings it on. No nausea. Complains that left leg is weaker than right. More spastic in right than left. Knee reflexes very lively but equal. Plantar responses not normal in either foot, but no typical Babinski, and no Gordon, Oppenheim, etc.

September 11. States he was never entirely unconscious. Before the "cloud" settled on him he noted a general weakness, and especially in left leg. Left arm and hand weaker than right. Voice still monotonous. Distinct but slight internal strabismus. States that for two months he has seen double at times.

October 24. Patient has improved steadily. Spasticity is less and vertigo has nearly disappeared. Clear in mind and has shown no unsocial condition today. Acute disorder of July and August over.

J., M. L. Age 57. Male. Examined with Dr. Coffey, October 17, 1919. States he passed three nights without sleep, following day was much exhausted. Slept heavily that night. In a. m. found he saw double, no headache, perfectly rational; weak, but able to walk. Examination: Temperature 102.8, Pulse 96, Resp. 18. Markedly staggering gait with weakness on right side; marked tremor suggesting cerebellar disturbance. Slight motor weakness of muscles of right face. Coarse tremor of part brought into play in attempting any muscular movement, as frowning, closing eyes, protruding tongue or even showing teeth. Grip not strong in either hand. Hands and feet, particularly right, move constantly. Pupils dilated slightly, do not react to light. Cerebration slow. Tremor and attitude very like man befuddled slightly by alcohol. Eye Examination: Pupils small and probably do not react to light. No nystagmus. Slight internal strabismus right eye. No other involvement of cranial nerves. He sees better, but still sees double. Blood and spinal fluid negative for syphilis. Vidal: negative. Cutaneous sensitiveness diminished over chest but not elsewhere. Both ankle jerks and right knee jerk absent. No Babinski. No disturbance of sphincters. Cerebration distinctly slow, but he understands and executes movements after they are repeated to him several times. A marked conjunctivitis from start. Wife reports he is most of time in a drowsy state, but can be aroused with no great difficulty. With exception of headache there has been no pain associated with attack.

November 6. Wife reports patient delirious at times, although afebrile for several days. Able to walk with less vertigo. Blurred vision in left eye still present.

Mrs. G. F. B. Age 36. Clerk in bank, widow with two children. Seen October 17 with Dr. Wymore. On October 11 felt slight steady pain in right side of neck. Next day it was more stabbing and constant. October 14 and 15 pain in neck increased. On October 16 went to work, but pain became paroxysmal and extended down arms and to breast, and back. Paroxysms were accompanied by spasm of muscles in region involved. Entered hospital October 16 in violent paroxysmal pain which continued uninfluenced by drugs for four days. Then for three days had no pain except in ball of left foot, but there continued in abdomen violent twitchings due to contraction of diaphragm. This is quite rhythmical and largely involves the right side, but occasionally the left. What caused relief of pain is not clear; morphia and pantopen did no good and made her even more excited. Nothing brought relief for first two days; antipyrine, salipyrine, aspirine alone and with phenacetine, caffeine, bromide and chloral, veronal, etc., all did no good. The first relief was

from 1/150 scopolamine, and for two nights this helped. Luminol was tried in dose of 1½ grains every six hours, and dialciba two tablets at night. This gave fair nights, but no relief of spasm. There was slight fever. On one occasion there was a slight amount of reducing substance in urine. Patient quite depressed. No previous eye disturbance, but sees double. No disturbance of hearing. No knee or ankle jerks. For several days past noticed considerable difficulty in getting flow of urine started, as though a spasm might be acting there. She has menstruated excessively recently, had influenza just a year ago. Has been said to drop things from both hands more easily lately. October 17 patient complained of a constant desire to urinate and move her bowels, and had great difficulty doing either one. Depressed all day. Pulse good. Unable to eat and nauseated by solid food. Very clear in her mind. States she sees double; there is slight strabismus. Tongue protrudes straight. No other involvement of cranial nerves except that smell and taste have been lost since influenza. Patient died quite suddenly at 1 a. m., evidently from paralysis of respiration.

C., T. Age 60. October 16, 1919. Began to see double after three or four days of insomnia, since then is sleepy all the time, irrational when aroused. Complained of pain in back of head and neck. Spells when he becomes rigid. **Examination:** Drowsy and irrational. Reflexes equal and lively in arms and legs. Pupils react to light and are equal. Does not raise left eyelid. Very resistive to passive movement. Wife states eyes were crossed before entrance to hospital. Conjunctiva injected. Rectal tempt. 101. Blood pressure 160/90. Wh. bl. count 14,100, 82% polys. Had to be tube fed the last five days and no sphincter control for last six days before death. **Course in hospital:** Ptosis of left lid continued until death. Progressive stupor. Paresis muscles of left face. Spinal fluid contaminated with blood. Wassermann negative. Died on ninth day.

C. E. D., Mrs. Age 31. Seen with Dr. Burnham. October 23, 1919. Neuritis for 18 days; began in back of neck and extended to both shoulders and down arms to hands. Pain spasmodic, agonizing in character and accompanied by muscular spasm where it is felt. Has felt it slightly for one week in both eyes, and has noted a progressive diminution in vision for five days. Temperature 100-100.5. No apparent lethargy. No obvious initial infection. Influenza last October; husband states she has not been well since, markedly unwilling to exert herself, a great contrast to her usual self. Pain on right side of throat has caused some difficulty in swallowing for a few days. **Examination:** Ptosis of left eye, spasm on left side of face at intervals of from 3 to 10 seconds. Synchronous with this is an intense pain in right eyeball, right side of nose and right breast region. Pupils equal and react to light. No knee or ankle jerks. No Babinski. Tache cerebrale marked. Restlessness of lower limbs, particularly the left, which in addition is flexed each time there is a spasm in the left pectoral region, but no pain is felt in legs. Spine not rigid, neck not stiff. No Kernig sign. Bilateral nystagmus, stronger to the right. Tongue deviates to the left. Slight weakness to lower facial group. No tremor or incoordination. Herpes labialis. Hallucination of sight, and it is obvious that only the intense pain keeps her from a drowsy state. The pain spread down the arm, and four days later was occurring in waves in two fingers of left hand, but without spasm. Spasms and pains in breasts were less severe and less frequent. Arm reflexes gone but right knee reflex returning. A late development was a rapid heart and brief attacks of syncope.

November 11. Afebrile for seven days; somnolent but free from pain. Is on digitalis for heart condition.

D. C. American. Age 19. Single. Seen with Dr. J. J. O'Connor. Patient somewhat irrational and slow of speech. On October 10 after a dance, complained of neuralgia over left side of face and forehead; on October 11 began to vomit after taking any solid food. Quit work October 14 on account general weakness. October 15 began to have hallucinations, sings and makes speeches. Several days ago had neuralgia in left arm and left side of scrotum. Is a trifle slow in his actions and responses. Says he sees double. **Examination:** Drowsy condition, answering questions very slowly. Facial expressions normal, no paralysis. Pupils unequal, left smaller; react to light and accommodation. Slight horizontal nystagmus to right. November 5. Nurse reports respirations slower when asleep, but accelerated by talking. During examination they number 36, and suggest a labored effort like a person after exertion. Nothing in lungs to account for this. Upper extremity reflexes equal, also exaggerated abdominal. Suggestion of weakness in left extremal rectus and left face muscle. Is a trifle slow in his actions and responses. Knee jerks very lively. Ankle clonus both sides. **Oculist's report:** Some blurring of outline of nerve heads. Suggests toxic condition rather than a change due to intracranial pressure. October 19. Wh. cell count 14,100. November 4. Wh. cell count 12,400. Blood serum and cereb. spinal fluid give Wassermann test negative. November 11. The course of the disease is sub-acute. Fever of 1-2 degrees for first ten days in hospital. None since. Hallucinations were brief. Present state marked chiefly by somnolence.

S., F. Italian. Age 47. Single. Seen with Dr. L. D. Bacigalupi. September 24, 1919. Patient began having pain in arms, hands and back, and two days later in elbows, wrists and finger joints. Finger joints swollen and very painful; the swelling has been coming and going since. Pain constant since beginning. No pain in knees or ankles. Pain in hips. Says he sweats all the time. No headaches. Complains of pain in arms and back. Daily fever to 101 degrees. Pupils react well to light and accommodation. Slight nystagmus. **Neuro-muscular**—No atrophy. Tendon reflexes are exaggerated. No clonus or Babinski. Patient perspiring slightly. October 10. Patient has been in a stuporous condition several days, and has developed a paralysis of left side of face. Cannot wrinkle left forehead or close left eye. Whole 7th seems involved; 5, 6, 8 and 9, 10, 11 and 12 O. K. October 25. Great restlessness for at least two weeks, wanders about at night when not restrained. Lies in comatose condition the rest of the time, beginning about the 12th and steadily deepening. Speaks when aroused, but confused from the first. Marked conjunctivitis. Slight palsy left lid. Tongue protrudes slightly to right. Palsy left face muscles. Reflexes of extremities equal and normal. Blood serum and cerebro fluid are Wassermann negative. November 11. Patient afebrile for two weeks; recovering slowly. Lies in semi-somnolent state all day, but is more easily aroused.

K. J. Age 23. Attorney. Seen with Dr. C. H. Thompson. October 29, 1919. **Complaint:** Pains in back of neck; intense neuralgic pains down both arms in paroxysms accompanied by spasms of muscles beginning ten days ago. Within three days vision slightly blurred and saw double. Temperature 101-105. Pulse about 100. Respiration 25-30. No trouble with bladder or rectum. Lies in semi-stupor, but easily aroused. No nystagmus. Slight strabismus. Reflexes in upper extremities exaggerated but equal. Knee jerk in left leg but not in right. Pain and spasm have decreased in frequency and severity for three days. Temperature still 100-102. No leucocytosis. Spinal fluid cell count 20. Wassermann negative. Urine normal. November 3. Still lies in stupor, but more easily aroused. Distinct tendency to ankle clonus. Plantar reflexes normal. Afebrile for two days.

G. G. Age 44. Telegrapher. November 2, 1919. After exertion in running for train noted tingling in left face and above and behind left ear. In few minutes throbbing, sharp twitching began in same region; following day extended to left shoulder and within 24 hours slowly extended to left arm, forearm and hand. The shooting pain was rhythmic and accompanied by contraction of muscles in part affected. Vision blurred and saw double on third day. No bladder, rectal, digestive or locomotor symptoms. Wife noted he was cross-eyed early in the trouble. Began to be drowsy about sixth day and remained so six days; had rambling delirium for few days. **Examination:** Double nystagmus, slight droop to left lid and left extremities. Upper extremity reflexes exaggerated except left triceps which is wanting. Lower extremity reflexes sluggish but equal.

Medical Building.

Original Articles

INTESTINAL FLAGELLATES: A PLEA FOR THEIR PATHOGENICITY.

By JOHN V. BARROW, S. B., M. D., Los Angeles.

A general survey of the literature on flagellated protozoa impresses one with their growing importance. Twenty years ago, they were reported in different human organs as a sort of curiosity, but scarcely to be thought of as pathogenic parasites. However, very recent years have brought a greater realization of their importance as producers of pathology. The amoeba and ciliated balantidium coli were first to gain recognition. Now they have a young army of medical men ready to respect their pathogenic power. What has happened in the role of the amoeba, and balantidium, is beginning to be realized in the case of the flagellated monads.

The influence of the "harmless commensal" literature is much to be regretted as it has doubtless deprived the profession of the report of many cases of pathology due to these parasites.

The conviction of most recent authors has been based almost exclusively on the ability of these organisms to produce dysentery. This is well illustrated by the work of Escamel (1) who from Peru cites one hundred and fifty-two cases due to trichomonas intestinalis. This infection was borne by polluted water. Mello-Leitao (2), Derrieu and Reynaud (3), and Rhamy and Metts (4), all report cases in which dysentery is given as the characteristic pathology. The latter authors even go so far as to state that they never have seen the flagellates in the intestines without their producing dysentery. Their review of a dysentery epidemic due to flagellates is very instructive. There were seventy-eight cases in all with eighteen deaths. The epidemic was traced to impure water. The clinical picture was diarrhea with colicky pains, watery or slimy blood-stained stools, weakness, dyspnea, loss of weight, anemia simulating the pernicious type, jaundice, and urticaria. Later the stools consisted of blood, pus, and active trichomonads. He noted

a moderate eosinophilia. Ulcer of the rectum occurred once.

Prentiss (5) from El Paso, Texas, reports several cases of diarrhea both chronic and acute, in which the cercomonas hominis was the causative factor. In his two autopsied cases there was intestinal catarrh but no ulceration. Chatterjee (6) considers flagellate dysentery a certainty and cites seventy cases in India as proof.

Nearly all the tropical writers emphasize dysentery as the only clinical manifestation of the presence of flagellate infection. Houghwout (7) refreshes us with a broader conception in his most excellent critical review from which I have drawn largely. He cites a case from St. Luke's Hospital, Manila, in which he considers the trichomonas was responsible for the diarrhea, mucous stools, and a small rectal ulcer. He offers no proof that the flagellates were the tissue invaders. His conclusions suggest so well a reason for the clinical picture which so often accompanies "Flagellosis," that I think they should be emphasized here. The effects that might be looked for, are summed up under these six heads:—

First: The production of antigrowth vitamins or growth inhibiting substances.

Second: The production of substances directly toxic.

Third: The unfavorable effects upon the host through the liberation of the metabolic products of the parasites.

Fourth: Mechanical irritation of mucous surfaces.

Fifth: Interference with absorption in the intestine through adherence of large numbers of the parasites, as is the case with lamblia infection.

Sixth: Actual invasion and destruction of tissues with concomitant sequelae.

The above author makes no attempt to prove these points, but clinical findings from my own series of cases are plentiful to substantiate every statement.

The above six points may well be grouped into two or three larger headings, such as, metabolic, toxic, and mechanical disturbances.

With some of my own cases, I wish to show the applicability of these principles. The following table will be more illustrative than a laborious description of a series of twenty-one cases.

In the table, it will be noted that there were three cases of intestinal perforation. From one of these the trichomonas intestinalis was recovered, both in the feces and in the peritoneal drainage. Amebic cysts were present in small numbers in the stool. Involuntary diarrhea lasted while peritonitis was present. The organisms were in overwhelming numbers. The scarcity of the amebae found as against the abundance of monads, could not but impress the observer that the latter and not the former were the real offenders. The other perforating cases were heavily infected with monads while no active amebae were seen. The entire series demonstrates focal bowel tenderness in such a way as to stimulate the belief that one is dealing with early possible perforating spots. The main points of tenderness are colonic and most

Case No.	Gastro-intestinal distress—dyspepsia	Loss of appetite	Loss of weight	Anaemia	Haemoglobin	Irritability	Cervical headache	General weakness	Epilepsy	Asthma	Dizziness and nausea	Diarrheal attacks	Blood in stool	Bowel Tenderness (ulcer)	Perforation and peritonitis	Degree of infection	Other organisms present	Prevailing organism
1	**	0	*	*	77	*	*	*	0	0	*	0	***	**	0	***	0	Trichomonas
2	***	**	*	*	55	*	*	*	0	0	***	***	***	***	0	***	Amoeba	"
3	***	0	0	0	80	**	*	*	0	***	***	***	***	***	0	***	0	"
4	***	**	*	*	55	**	*	*	0	0	***	***	***	***	***	***	Amoeba	"
5	***	**	*	*	25	***	*	***	0	0	**	***	***	***	***	***	0	"
6	*	*	*	*	70	*	*	*	0	0	**	0	*	**	0	**	0	"
7	**	0	0	*	15	**	*	***	***	0	**	0	*	**	0	**	Amoeba	"
8	**	*	*	*	70	***	*	*	0	0	**	0	*	**	0	0	0	"
9	***	**	*	*	55	**	*	***	0	0	**	***	***	***	?	***	Amoeba	Lambli
10	***	**	*	*	40	**	*	*	0	0	**	0	***	***	***	***	Amoeba	Trichomonas
11	***	**	*	*	40	**	*	***	0	0	***	*	***	***	0	**	Amoeba	Lambli
12	***	**	*	*	35	**	*	***	0	0	***	*	***	***	?	***	Amoeba	Trichomonas
13	***	**	*	*	75	*	0	*	0	0	**	*	**	**	0	**	0	Cercomonas
14	**	*	*	*	45	***	*	*	0	0	**	0	**	**	0	**	0	Trichomonas
15	**	*	*	*	70	**	*	***	0	0	**	0	**	**	0	**	0	"
16	**	*	*	*	70	**	*	*	0	0	*	0	**	**	0	**	0	"
17	**	0	*	*	75	0	0	*	0	0	**	0	**	**	0	**	0	"
18	**	0	*	*	60	**	*	*	0	0	**	***	***	***	0	***	Amoeba	Lambli
19	**	*	*	*	45	**	*	***	0	0	**	**	***	***	***	***	0	Trichomonas
20	**	*	*	*	85	*	*	*	0	0	*	0	**	**	*	***	0	"
21	**	0	0	0		*	*	*	0	0	*	0	**	**	*	***	0	"

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often caecal, though the small bowel is undoubtedly disturbed from the pylorus to the ileum.

There are two other cases in the series that deserve especial mention because of the appearance of epileptic attacks. Both of these patients are men of 30 years of age. Both were pharmacists at the time of their first attack. Each man was in his third decade when his first attack came. Careful physical and serological examinations reveal nothing to account for the onset. *Trichomonas intestinalis* is found in abundance in each case. One has diarrheal attacks. Both have general bowel tenderness. Each one experiences relief on the administration of laxatives. All known measures have failed to rid them of the flagellates or to give hope of permanent relief from the epileptic attacks. They both feel the influence of the disturbed bowel on their mental condition.

It seems reasonable to think that these cases may demonstrate the elaboration of toxins whose absorption is sufficient to upset the sympathetic balance and thereby induce these epileptiform seizures. The same line of thought seems reasonable to apply to a case of asthma in which the flagellate infection is severe and resists all known treatment. It is remarkable to note in this case that a thorough physic relieves the asthmatic symptoms greatly.

The above cases seem to me very strongly suggestive of the absorption of products elaborated in the intestine by the parasite and absorbed by the host. The other symptoms so common such as cervical pains, malaise, melancholia, loss of appetite, foul breath, nausea, dizziness, excessive mouth mucus, and general sluggishness strongly support the belief in the pathogenicity of these parasites. To substantiate the same line of thought Pollock and Pickard (8) of San Diego have only very recently given a valuable contribution, citing a number of detailed cases.

The locations of attack in the gastro-intestinal tract are variously given. Smithies (9) found

trichomonas intestinalis in the stomach in two cases. Brumpt (10) found it in the colon. Hadley (11) thinks the goblet cell in the caecum is the atrium for perforating attacks of *Lambli*. Lynch (12) reports cases of simultaneous infection of the mouth and vagina. One author (13) gives the normal habitat of *Lambli* as the small intestine in man. He is authority for the statement that the caeca of rats and mice harbor *Trichomonas intestinalis*. Outside of the intestinal tract, they have been reported in the mouth, gums, lungs, liver, bladder, vagina, and externally in carcinoma.

The flagellates most often observed in California are the *Trichomonas intestinalis*, *Lambli intestinalis*, *macrostoma mesnili*, *cercomonas hominis*, and *Blastocystis hominis* (?). There are dancing spores and Leishman-like bodies of which I can find no description.

The *Blastocysts* seem at times to possess definite flagellar motion, but their status has not yet been worked out. It has been thought to be an encysted form of *Trichomonas* but this has not been proven. A comparison of the type of *Trichomonas* most often encountered here and the *blastocyst* will impress one with their difference, as the following illustrations will show:—



(Free Hand Drawings)

Considerable has been written on the ability of the *trichomonas* to form resistance cysts. Lynch (14) has painstakingly described such forms. From his technic of staining and his illustrations of cysts, I am convinced he was dealing with the active monad with its protoplasmic changes due to the usual effect of stains and fixatives.

I have often observed what seemed to be resting forms, but have no proof that these were not dead organisms. They were completely round and in the fresh specimen no flagella or tail could be made out. There was no clear marginal zone as Lynch describes. The organisms undoubtedly are greatly changed in both size and contour in the process of fixing and staining. During life its extreme activity baffles any attempt at accurate drawings of all parts. This probably accounts for the great number of species described by different workers. In the same coverslip preparation, I have found organisms that meet all the requirements of typical trichomonas—three anterior flagella, undulating membrane and stiff, stubby, fixed tail, alongside of other organisms that make a good picture of the typical trichomastix with three anterior flagella and one recurrent flagellum not adherent to the body to form an undulating membrane. The tail is well marked and in some organisms has one or two well marked flagella. Such an organism has been recently described by Chatterjee (15) as the first appearance of the trichomastix in human pathology.

The technic of finding the trichomonad is simple. One or two small loopfuls of the specimen are mixed with a small drop of salt solution or warm water and placed under a cover-glass. Examined with the oil immersion lens. The preparation must be thin and if there are too many currents, the cover-glass should be margined with vaseline or any suitable oil. The stool does not need to be kept warm. The organisms will remain active at room temperature for several days.

We cannot claim any degree of success at culturing these organisms. The method of Ohira and Noguchi (16), inoculating salt solution with infected feces, and incubating has not been satisfactory. We are now using a normal saline filtrate of the stool of the host as media, with some promise of greater success but our results are too incomplete for publication.

No treatment thus far recommended is wholly successful. Most of the vaunted remedies are ameliorative but not curative. Calomel followed by a saline laxative gives the best temporary relief, but in about ten days time, a careful search will reveal the parasites again. It is therefore necessary to repeat treatment many times. Thymol in large doses has considerable value. Emetine and ipecac exert a helpful influence on most cases, if the patient's feelings may be taken as a criterion. Oil of chenopodium and turpentine are very helpful, enemata of kerosene, ichthyol, or allied substances have a marked beneficial effect, while those of methylene blue and sodium bicarbonate have about the same relative value as tap water. Eternal vigilance and variation mark the successful management of these cases in their present status.

In conclusion, I wish to emphasize:—

First, that intestinal flagellosis is relatively common in California.

Second, that their presence begets more pathology than is generally conceded.

Third, that their pathogenicity is not wholly

manifested by dysentery, but rather more often by other signs of an absorptive toxemia.

Fourth, that our present methods of treatment are inadequate for a definitely manifested pathology.

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A PLEA FOR THE EARLIER RECOGNITION OF SUBACUTE INFANTILE SCURVY.

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It is a popular lay notion which unfortunately has found its way into the medical mind that scurvy is rare in California. This belief is accentuated by the facts that the orange, a well known antiscorbutic, is a common fruit, and that most children of the State eat it frequently. An inquiry into the incidence of the disease shows this idea to be erroneous.

We have been able to collect from three San Francisco hospitals, from the records of a few of our pediatric friends and from our own, a series of thirty-nine cases which have occurred since July, 1917. For the most part, these represent the extreme cases that find their way into the hospitals and into the hands of the children's specialist. The majority of them present the well marked symptomatology of the florid type of scorbutus, viz., swollen and bleeding gums, hyperesthesias, subcutaneous hemorrhages, flexion of the thighs, pseudo-paralyses and swollen epiphyses due to subperiosteal hemorrhages. Among them however are

cases with less striking symptomatology, the "scorbute fruste" of the French, the "subacute infantile scurvy" of which Alfred Hess has written in this country. These cases are characterized by a symptomatology just as significant though not as spectacular as are the former. The writers are convinced that this type is much more common in California than is the florid type. We believe that the most of these cases are overlooked and that in reality many uncomfortable and crying babies are sufferers from subacute scurvy. Without a doubt, a spontaneous cure is often effected because the age incidence of the disease corresponds roughly with the time at which mixed feeding is commonly begun.

Mainly from the view of calling attention to this group of scorbutic cases, this paper is presented. California practitioners especially should be cognizant of the disease for there is no more classical presentation of the subject than that given by William Fitch Cheney of San Francisco in 1896 in the Boston Medical News.

In spite of the fact that when fully developed, the florid type of scorbutus presents an unmistakable clinical picture, many cases find their way into the hospitals with a previously made diagnosis of rheumatism although every physician knows that rheumatism rarely occurs during the first and second years of life. This fact is all the more surprising when one considers how rich the literature on the subject has been ever since the first description of the disease was presented to the profession by Thomas Barlow in 1883.

Descriptions of scurvy in the adult first appeared in the earliest medical writing. The Roman armies were afflicted with it. It was one of the disabling factors of military and exploratory expeditions until the arts of canning and refrigeration put an end to it by providing foods other than in the dried state. It is the merit of a Swedish physician, Ingerslev in 1873, first to have caught the idea that babies might be subject to the disease. In 1878, Cheadle in the London Lancet described three cases. These reports initiated an interest in the subject, and in 1883 Barlow reviewed 31 cases that had been reported as "acute rickets" but which he believed were acute infantile scurvy. In 1894, before the Royal College of Physicians in one of the Bradshaw Lectures, he carefully reviewed the literature and reported cases of his own with the result that the disorder has since been known as "Barlow's Disease."

The etiology of infantile scurvy has excited much discussion. In 1902, Sill reported upon 179 infants fed on boiled or pasteurized milk among whom 97 per cent. showed signs of either rickets or scurvy or both. The American Pediatric Society undertook a survey and appointed a committee to investigate the subject. The committee made an exhaustive inquiry and in 1898 submitted a report which embodied a study of 379 cases. Their conclusion was that the disease "is due to a diet unsuitable to the individual" and that certain named proprietary foods seemed commonly causative. Beyond this, the committee refused to be bound. In 1907, in the Journal of Hygiene of

Cambridge, the Scandinavian investigators, Holst, Frolich and Von Furst reported a series of experiments in which they fed guinea pigs on dried grains. The animals died within four to six weeks and showed at autopsy scorbutic changes. As a control they fed other guinea pigs on a starvation diet of cabbage, dandelion and carrots until they had lost 30% to 40% of their body weight. On post mortem these showed no indications that they had suffered from scurvy.

The literature of the last ten years is replete with discussions regarding the exact etiological factor involved, but beyond the general conclusion that scorbutus is due to the absence of some substance, (vitamin) found in fresh food, there is little known of the underlying cause. Baumann and Howard, in 1912, working on the metabolism of scurvy, found that during the course of the disease, the sulphur balance is sustained; that sodium and chlorine are retained when fruit juice is fed but that they are excreted in excess of intake before such treatment is instituted; and that calcium, potassium and magnesium are also retained during the period of treatment.

In order to determine the question which has been raised by McCollum regarding the possibility that putrefactive bacteria of the intestine might be causative agents of scorbutus, Torrey and Hess in 1918 did a series of experiments on guinea pigs which they fed on a diet that caused scurvy and later on antiscorbutic foods which cured the disease. The intestinal flora in both instances was that found in any diet rich in carbohydrates, viz., *B. bifidus*, *B. acidophilus* and a few streptococci and *B. coli*, mostly organisms antagonistic to putrefaction. They confirmed these experiments by observations on scorbutic infants and arrived at the conclusion that neither in animals nor in infants is scurvy due to an overgrowth of proteolytic intestinal microorganisms.

The fact that scurvy is known to develop in a small percentage of breast fed infants and in some fed on raw milk, leaves the question of an exact etiology open. But about one thing there is unanimity of opinion, and that is that the feeding of antiscorbutics, orange juice, tomato juice, potato and the like is always indicated and that these foods are equally valuable in the prevention and in the cure of the disease. Therefore a failure to advise mothers regarding the prophylactic use of such substances can never be justified.

The diagnosis of the most frequent, though least recognized form, is easy after a careful history has been taken and clinical observations made. The mother complains that the child is "fussy" and irritable and that it cries when she takes it up. There usually is no swelling of the epiphyses at this stage but it is probable that there is a history of easy bruising and there may be hemorrhagic spots somewhere over the body. One of our cases showed no other sign than a black and blue ring around the buttocks where a tightly pinned diaper had made pressure, except some tenderness referable to the bones. The diagnosis of subacute scurvy was justified because both symptoms cleared up promptly when the child was given orange juice

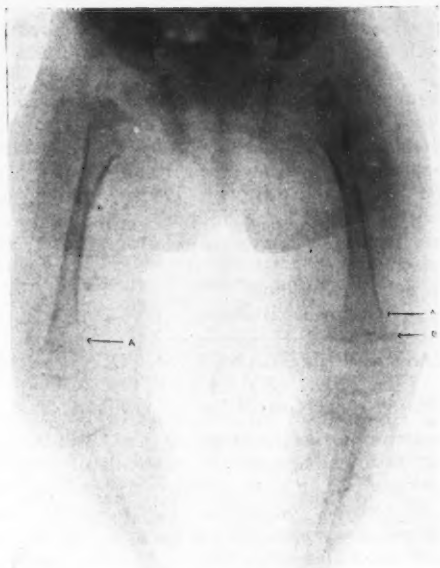


PLATE I
A—Subperiosteal hemorrhage.
B—Beginning bone deposit.

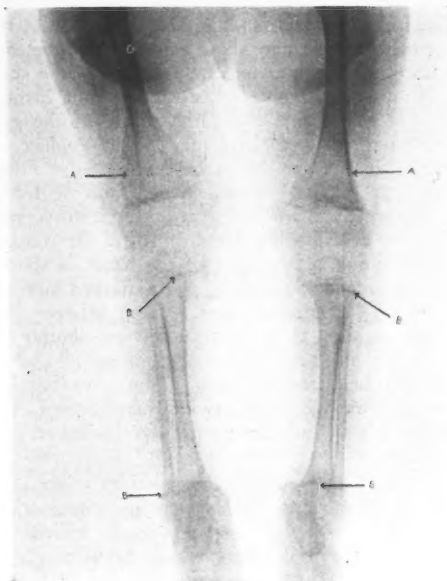


PLATE III
A—Marked bone deposit.
B—"White Line" of Frankel.

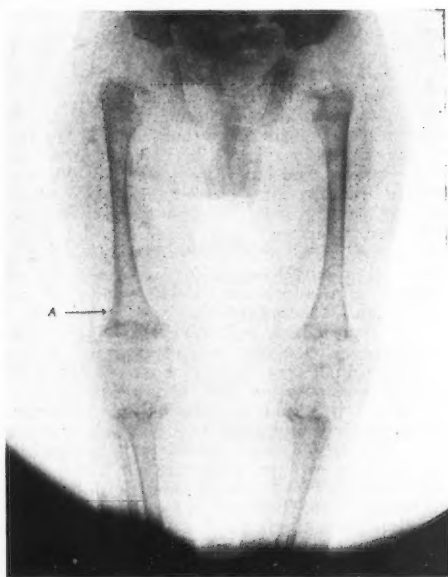


PLATE II
A—Layer of subperiosteal bone.

and potato cream—a therapeutic test which can easily be applied to all suspicious cases with an assurance that no harm will be done even if some other cause of tenderness and easy bruising be found. In the category of subacute forms may be placed several reported cases in which hematuria was the predominant or only symptom of the disease—a symptom which rapidly vanished when antiscorbutic foods were added to the dietary.

In this connection it is interesting to note that a disinclination to move the legs may be a symptom of that common disorder of female infants,

cystitis. It also occurs in syphilitic involvement of the bones.

As in the fully developed florid form, a careful history will usually elicit the fact that the child has been fed on an overheated food. In cases developing in breast fed infants, the possibility of some definite constitutional disturbance on the part of the mother should be considered. The beginning of the disease is usually gradual. Close questioning will usually indicate that there was a period of anorexia, head sweating, pallor, anemia, restlessness and discomfort of varying degree before the onset of the alarming symptoms. The major symptoms appear with dramatic suddenness. The child seems to have become paralyzed, and after a few hours or days of pseudo-flaccid palsy, it assumes a characteristic dorsal position with flexion and outer rotation of the thighs, or if the upper extremities are affected a pseudo-palsy simulating the Erb type. Swellings appear at the region of the epiphyses. The most commonly affected are the lower epiphyses of the femur; next in frequency the lower epiphyses of the tibiae; after these the epiphyses of the hip joint and the upper epiphyses of the humerus. The swellings are due to hemorrhages by which the periosteum is raised causing great tenderness. Any epiphysis in the body may be the site of the hemorrhage. The growth cartilages of the vertebrae may be involved in the process and such cases have been mistaken for acute Pott's Disease. Hemarthroses are also found while such a bizarre occurrence as a hemorrhage under the periosteum of the orbit resulting in a unilateral proptosis which occurred in one of our cases has been cited by Debuis as occurring in some 10 per cent. of the 397 cases studied by the committee of the American Pediatric Society. Even before these major symptoms develop, an examination of the mouth may reveal spongy

gums which bleed on the slightest trauma. At the same time, the skin may show evidence of cutaneous or subcutaneous hemorrhages. As well as the skin, any mucous membrane may be the site of a hemorrhage. If this occurs along the course of the gastro-intestinal tract, melena may be in evidence—sometimes it is even the earliest symptom. Fever may or may not be present. Severe and neglected cases frequently show the cardio-respiratory syndrome first described by Hess in 1917. It consists of a broadening of the base of the heart as shown by percussion and radiograph, and a marked increase in pulse and respiration rate. Hess believes this condition is due to a nerve affection similar to that found in the "deficiency diseases," adult scurvy, beri-beri and pellagra. Since reading his communication we have twice encountered the syndrome which undoubtedly we overlooked in our earlier cases.

The chance of confusing scurvy with other conditions is remote. The rarity of rheumatism during the first and second years affords a sufficient differential diagnosis. Syphilitic epiphysitis is not usually accompanied by evidences of external bleeding, and the history and concomitant symptoms of lues may be elicited. Sarcoma is usually limited, at least during its earlier stages, to a single bone, and the generalized tenderness of scorbutus fails to develop. Osteitis is also a disease without great hemorrhagic tendency and runs a characteristic febrile course. Furthermore, radiographs of these varying conditions are pathognomonic.

In 1909, Riesenfeld¹ reported a case with accompanying radiographs in which there were subperiosteal hemorrhages and changes in the epiphyses. He described the latter as "a horizontal irregular shadow seen at the epiphyseal line and giving the end of the shaft a distinctly hammered out appearance." Talbot, Dodd and Petersen, studying the radiographic appearances of experimental scurvy in guinea pigs, arrived at the conclusion that the "white line," first described by Frankel, is a constant sign of the disease and that it persists long after clinical recovery, indicating a slow process of repair.

It is our belief that the white line is of no great consequence in making a diagnosis in the early cases. The early radiographic picture reveals little more than subperiosteal hemorrhages. This condition is shown on Plate I. The hemorrhage is followed by proliferation of bone tissue as is indicated on Plate II. If the hemorrhage has been profuse, particularly along the shaft of the bone, there is a subperiosteal new bone formation which varies in amount with the extent of the bleeding. This condition is well illustrated by Plate III which also shows the "white line" of Frankel.

The facts here presented warrant the conclusion that scurvy is not rare amongst children who live in the vicinity of San Francisco. Most of the cases come to the clinics undiagnosed, a state of affairs which suggests that the less evident subacute cases are being overlooked. It is the hope of the writers that this paper may emphasize the

need of a close scrutiny of young children in a search for the "fruste" forms of scorbutus.

We are indebted to Professors Cheney and Yerington of Stanford University Medical School and to Doctors Holsclaw and Fleischner of the Children's Hospital and Dr. Adelaide Brown for the opportunity to study their records.

The radiographs are by Doctors Bailie and Chamberlain of the Children's Hospital; case records from the service of Doctors Porter and Holsclaw.

410 Schroth Building.

1015 Investment Building.

A CASE OF TETANUS SUCCESSFULLY TREATED BY ANTITOXIN.*

By H. P. JACOBSON, M. D., Los Angeles.

In view of the uncertainty that still seems to exist as to the appropriate treatment of tetanus, and because of the desirability of putting all cases of recovery on record, the following case may prove of interest. It represents a type which required heroic measures, and in which vigorous serum treatment administered alternately intraspinally, intravenously and locally has brought about a rapid and complete recovery.

The history of the case is as follows:

S. L., male, aged 12 years—American born of Armenian parentage, previously has never had any serious illness. His present illness dates from November 22nd, 1918, when he stepped upon a rusty nail, receiving a slight superficial wound in the plantar surface of the right foot. The injury was attended by the mother and left to heal by itself. Seven days after injury the patient began to complain of stiffness and some pain in the neck, which progressed rapidly and extended to the muscles of the jaw. On November 30th his jaw began to be stiff and interfered with opening and closing of the mouth. By that time the family had decided to call a physician, who diagnosed the case as tetanus, and administered 1500 units of antitetanic serum subcutaneously and promised the family to return the following day. For some reason the physician did not return, and the patient meanwhile grew rapidly worse. The writer was called on December 2nd, about 4 p. m.

The patient was in bed suffering from excruciating pains, restless and scared. Upon my approaching the bedside he was seized with convulsions lasting about a minute, returning at frequent and irregular intervals and accompanied with a profuse perspiration. The forehead was wrinkled, angles of the mouth retracted, the head thrown backward, producing the typical sardonic grin. The jaws were completely locked. The muscular contractions were generalized, extending over the whole body and giving a board-like sensation to touch. The forearms were flexed upon the arms and rigidly fixed with clenched fists. The spine was arched forward, producing a sharp concavity on the posterior aspect of the trunk. The lower extremities were extended and completely fixed. The Kernig sign was very marked, and deep tendon reflexes very much exaggerated. Babinsky and Oppenheim signs were negative. The patient was removed to the hospital where the following treatment was carried out:

Dec. 2nd, 7:30 p. m. Lumbar puncture was made, but no fluid withdrawn. 10,000 units of antitetanic serum administered intraspinally. The in-

*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

jured foot was incised about $2\frac{1}{2}$ " in length and $\frac{1}{2}$ " in depth, laying the wound wide open. The wound was then cauterized with tincture of iodine, and before inserting the drain and bandaging 5000 units of antitoxin were injected in the site of incision. The patient was removed then to an isolated room, dimly lighted and away from all possible noises.

Dec. 3rd. 14 hours after the first treatment, encouraged somewhat by a slight improvement, 10,000 units antitoxin were given intravenously and 2.0 cc. of 25% sol. of magnesium sulfate intraspinally. At 7:30 p. m. the same day, the patient received 5000 units of antitoxin intraspinally, 10,000 units intravenously and 1 cc. magnes. sulfate intravenously.

Next morning he was much improved, spent a fairly good night with few spasms, temperature, pulse and respiration better, the muscles of the upper extremities well relaxed and a beginning relaxation of the facial muscles. 15,000 units more of antitoxin and 2 cc. mag. sulfate intraspinally were given and again in the evening 10,000 units of antitoxin intravenously.

Dec. 5th. Still further improvement in the condition of the patient. 10,000 units of antitoxin intraspinally and 2 cc. of mag. sulfate intravenously. At this time he was able to take soft nourishment by mouth. At 8 p. m. of the same day he received again 10,000 units intravenously and 2,000 units of antitoxin at the site of infection, also 2 cc. of magn. sulfate intravenously.

Dec. 6th. 15,000 units intravenously and 2 cc. of magn. sulfate intravenously and later in the day after a consultation with Dr. John V. Barrow, again 10,000 units of antitoxin intramuscularly. The patient continued to improve rapidly, and 24 hours later, Dec. 7th, 9 p. m., he received a final dose of 5000 units of antitoxin at the site of the wound. The patient was restful and took nourishment well. Sedative treatment was discontinued.

On Dec. 13th the patient sat up in a wheel chair and on Dec. 20th, 18 days after admittance to the hospital, he was discharged as cured.

Summary of antitoxin treatment.

	Intraspinal	Intravenous	Intramuscular
Dec. 2.....	10,000		5,000
Dec. 3.....	5,000	25,000	
Dec. 4.....		20,000	
Dec. 5.....	10,000	10,000	2,000
Dec. 6.....		15,000	10,000
Dec. 7.....			5,000
	25,000	70,000	22,000

Total, 117,000 units.

Comment: In view of the wide divergence among authorities as to the best method of administration of antitoxin I can not but be favorably impressed with the above method of simultaneous administration. Leaving aside an academic discussion as to what path the toxin may take on its way to the central nervous system, one thing is certain—that we deal here with a localized toxin factory from which toxin is continually absorbed along the nerves, finally reaching its ultimate destination, the nerve cells. The problem then resolves itself into bringing toxin and antitoxin together within the shortest period of time and under the conditions most favorable for a neutralization to take place. There are three alternative lines of attack available.

1. The local factory of toxin.
2. The line of transit of the toxin to the central nervous system which includes the sub-

cutaneous, intramuscular and intravenous routes.

3. The central nervous system itself.

In view of this the administration of antitoxin jointly or alternately-intraspinally, intravenously, intramuscularly and locally seems the most rational and promising method of treating tetanus.

Investment Bldg.

Instructor Medical Department U. S. C.

Book Reviews

Never-Told Tales. By Wm. J. Robinson. 14th edition. New York: Critic and Guide Company. 1917.

These simple and true stories, well told by the renowned prolific and fearless author, surely are worth reading. In the memory of every experienced physician they must evoke reminiscences of similar experiences. Physician and layman will find ample food for thought and broadening of their mental horizon. V. G. V.

Urology. By Victor C. Pederson. 991 pp. Illustrated. Philadelphia and New York: Lea & Febiger. 1919. Price, \$7.00.

In this work the author presents a most thorough and up-to-date textbook on the subject of urology. It is an excellent collaboration of the author's well rounded out literary knowledge of the subjects, plus his vast clinical experience. The grouping of the subjects is most original, but has been so well worked out as to cause no confusion in following any particular phase. The chapters on urethroscopy, the bladder, the ureters and renal functional tests, are up to the minute in these everchanging subjects and will be of great benefit to anyone interested in these specialties.

There are many typographical errors throughout the book, which should be corrected in a later edition. The author has made no mention of Hunner's ulcer of the bladder, which is a well defined pathological entity. The work, as a whole, is a complete and modern textbook and will prove of value both to the student and the practitioner interested in the subject of urology. H. K.

Surgical Clinics of Chicago. Volume III, Number 3. (June, 1919.) Octavo of 287 pages, 118 illustrations. Philadelphia and London: W. B. Saunders Company, 1919. Published bi-monthly. Price, per year, paper, \$10.00; cloth, \$14.00.

R. L. Moodie: Studies in paleopathology; ancient lesions and the practice of trephining in prehistoric times. D. N. Eisendrath: Injuries of joints in war and in civil life. B. F. Davis: Cyst of the urachus. Gustav Kolischer and J. S. Eisenstaedt: Tumors of the urinary bladder. W. E. O'Neil: Persistent patent omphalomesenteric duct. B. F. Lounsbury: Plastic repair of the heel. W. F. Hewitt: Indications for Caesarean section. V. D. Lespinasse: Sterility. W. M. Harsha: Fractures. T. J. Watkins: Care of suppurating wounds following abdominal section. R. T. Vaughn: Hematoma of right rectus muscle. E. L. Moorhead: Stricture of esophagus. Gonorrheal spur on os calcis. C. E. Humiston: Demonstration of five cases. F. B. Moorhead and K. W. Dewey: Composite odontoma. G. L. McWhorter: Surgical treatment of empyema. A. E. Halstead: Diverticula of esophagus. Karl A. Meyer and W. F. Moncreiff: Volvulus. A. J. Ochsner: Umbilical hernia. Intestinal fistula. Excision of coccyx and repair of ventral hernia. Carl Beck: Extensive osteomyelitis

with necrosis of tibia. Carcinoma of upper eyelid. Webbed fingers. Dr. Gatewood: Duodenal ulcer. A. D. Bevan: Obstruction of common bile-duct. Brodie abscess. Rodent ulcer of face. Pilonidal cyst. Gastrotomy on baby for removal of open safety-pin. Tumor of urinary bladder. Amebic abscess of liver.

Manual of Exercises for the Correction of Speech Disorders. By May Kirk Scripture and Eugene Jackson. 236 pp. Illustrated. Philadelphia: F. A. Davis Company. 1919. Price, \$2.00.

Outside of stammering and cognate speech defects by Blumel, which I reviewed in this Journal years ago, nothing in the way of a practical manual for the treatment of stuttering has appeared except the present volume by Mrs. Scripture. It is a book of value principally to teachers of speech disorders, and could scarcely be used by the layman or physician unacquainted with the general subjects.

In the preface a very worthy plea is made for early correction, first in the home and then in the primary schools. Undoubtedly this would go far to obviate defects which at a later period prove a brake to the efficiency of the individual. With truth the author insists that parents should always demand of their children even at the very beginning of speech, distinct utterance, no baby talk; no elisions of syllables, no slang, no short grunts for polite answers, no carelessness in thought or speech, and finally no nervous habits should be allowed to creep into the speech, such as hesitation, catching breath, etc.

The exercises themselves are all in practical use in the Vanderbilt Clinic. The melody cure of her famous husband is barely mentioned and no credit is given to him for it, although the principle is used over and over again in the exercises. H. H.

Milk. By Paul G. Heineman, Ph. D., Director of the Laboratories of the United States Standard Serum Company, Woodworth, Wisconsin. Octavo of 684 pages with 237 illustrations. Philadelphia and London: W. B. Saunders Company, 1919. Cloth, \$6.00 net.

The author was for thirteen years connected with the Department of Hygiene and Bacteriology in the University of Chicago, and his work is timely and exhaustive in its discussion of milk and milk products. The many illustrations and tables and the careful bibliography which completes each chapter make this a valuable reference book for scientific workers in the various problems connected with the milk supply of cities. Commercial and scientific advances are all carefully illustrated and discussed, and the publications of the United States Department of Agriculture, the American Medical Association and the public health associations of the country have been thoroughly worked over in gathering material for this book. The best milk law of the country, that of New York City, is quoted in full, as well as the standards for the production of certified milk. Copies are given of dairy score cards, and the method of scoring of dairies is thoroughly discussed.

Apropos of pasteurization before shipping into New York, the New York law requires that milk pasteurized outside the city limits should contain less than 300,000 bacteria per c.c., until it reaches the consumer. To secure this bacteriological content requires the transportation in refrigerator cars and continuous holding of the milk below 50 degrees until it reaches the consumer. An exhaustive treatise on the problems of the milk supply in large cities is a welcome addition to the libraries of public health specialists and those concerned in the welfare of childhood, as well as to the large group

teaching home economics in the high schools and universities throughout the country. Such a contribution Dr. Heineman has made in this book. A. B.

Tuberculosis of the Lymphatic System. By Walter Bradford Metcalf. 216 pp. Illustrated. New York: Macmillan. 1919.

This volume is very timely and can be recommended as an acquisition to every physician's library, particularly the general practitioner. The author has briefly, but thoroughly, reviewed every phase of tuberculosis, beginning with anatomical considerations and ending with treatment. There is practically nothing new in the entire book. It is essentially a resume condensing all the known data on tuberculosis. The various theories regarding the etiology of tuberculosis are given considerable space, including the most recent one—that all tuberculosis takes its inception in childhood. Under diagnosis, the various tuberculin tests are carefully and accurately outlined, a valuable aid to the beginner who wishes to perform them. Under treatment, the author particularly recommends the use of long continued doses of tuberculin as preferable to surgical treatment, and states if general building-up processes, "combined with tuberculin therapy properly administered were used the surgical part of the treatment might be largely dispensed with." He also recommends the use of the X-Ray. W. C. V.

Treatise on Cystoscopy and Urethroscopy. By Georges Luys. Translated and edited with additions by Abr. L. Wolbarst. 386 pp. Illustrated. St. Louis: C. V. Mosby Company. 1918.

As the translator states in his preface, the book is "frankly a plea in behalf of direct vision cystoscopy and urethroscopy," done especially with Luys' instruments. An interesting historical review of the development of the urethroscopy and cystoscopy is given, which describes particularly the European models while the most popular American types are not mentioned.

The chapter on urethroscopy covers the subject fairly well, and is well illustrated, especially on the posterior urethra, and a good working knowledge can be obtained. An axiom is given in the contra-indications to urethroscopy, which can be remembered to advantage, "the urethroscope should never be employed in a canal which has not been previously studied and dilated." The section on the catheterization of the ejaculatory ducts is well presented and the proper indications for its use is best illustrated in the case that is cited. In the section on the treatment of prostatic hypertrophy endourethrally, no mention is made of Young's Punch Operation, which in many cases can be used to better advantage than the galvano-cautery.

Considerable knowledge of cystoscopy can be obtained from the pages devoted to this subject, though it is written particularly from the standpoint of direct vision cystoscopy with air dilatation. The section on kidney function tests merely mentions the subject and author states, "ureteral catheterization is extremely limited, much more so than in the exploration of the ureters and pelvis; and it should be employed only in such cases in which my 'urine segregator' cannot be utilized," which is a very different point of view from the American urologists.

The galvano-cautery, through the direct vision cystoscope, is advised instead of fulguration in treating bladder tumors.

In conclusion the reviewer is rather impressed with the book, chiefly because of the operative possibilities offered by the direct vision instruments, which we find rather difficult to do with the indirect. J. R. D.

County Societies

ALAMEDA COUNTY.

At the October meeting of the Association, Dr. Stanley F. Berry described the treatment of the wounded soldiers at the zone of attack in a most interesting manner, and also answered a number of questions.

Fracture, Dislocation at the Ankle Joint, Varieties and Treatment, was the subject of Dr. George Rothganger's paper.

1. The correction of the dislocation of the talus usually corrects the displacement of the bony fragments.

2. In the anterior, external and posterior dislocations the foot should be put in the over-corrected position, but not in the internal dislocations.

3. The reposition of the malleolus (or torn deltoid ligament) is of surpassing importance in comparison with any reposition of fibular fragments.

4. Graded exercises to develop the strength of the ligaments before the foot bears the full body weight.

Dr. C. A. Wills showed a number of slides of war fractures after which matters of importance to the Association were discussed by Mr. Hartley F. Peart, counsel, League for the Conservation of Public Health.

The Association is indebted to Dr. L. P. Adams for arranging the program.

The Oakland Hospital Corporation held a dinner Friday evening November 7, at which some fifty of the leading professional and business men of Alameda County were present.

The main topic of discussion was the building plans. The consideration of the plans was simplified by lantern slide projection.

Dr. and Mrs. E. N. Ewer have just returned from New York, where the doctor attended the Clinical Congress, American College of Surgeons.

Drs. Don D. Weaver, T. C. McCleave and G. T. Pomeroy have returned from the service.

Dr. Pomeroy will leave again in a few days for Constantinople, to systematize the work in the hospitals of the American Committee of Relief for the near East. The doctor expects to be absent a year.

At the November meeting of the Merritt Hospital staff, Professor Carl Schmidt of the University of California discussed the Immunity Properties of Proteins.

Dr. George Rothganger at the request of the staff repeated the paper he read before the Alameda County Medical Association.

The following improvements are approaching completion at Arroyo Sanatorium:

1. A new and adequate water supply both for institutional use and for irrigation; together with an adequate fire-protection system. Over 100,000 gallons of water a day will be pumped from the lower gravel levels of the Arroyo del Valle into storage reservoirs on the high ground of the Sanatorium reservation. A special fire pump will give the necessary high pressure through a system of hydrants installed at strategic points.

2. A new medical and administration building adjoining the present infirmary. This is being well equipped for X-Ray, laboratory, dental, nose and throat and surgical treatment. In addition it has sufficient space for administrative purposes and the reception of visitors.

3. A service building containing besides well arranged sleeping rooms for the male help a large recreation room with an open fire-place, built-in book cases and wide windows, pleasant dining rooms for the members of the staff and for the child patients of the institution together with a kitchen and store room.

4. A service building, the upper floor of which is devoted to sleeping apartments for the women

help with a large recreation room similar to the one in the men's building, the lower floor being arranged in four suites or apartments with folding beds and separate bath and toilet facilities, intended primarily for married couples.

5. The opening of the children's building. This beautiful building is quite apart from the main institution so that the little patients will not come in contact with the adult cases. There are four open wards and accommodation for about thirty children. The ground behind this building is well adapted for playground purposes and the children will have every facility for the exercises suited to their condition.

6. School for Training Nurses attendants. This is under the supervision of the State Board of Health and will offer opportunity to women who wish to fit themselves for service in large public sanatoria. There will be lectures in Elementary Physiology, Anatomy, Pharmacology, Dietetics, Hospital Ethics and the Social Aspects of Disease, in addition to practical experience in care of the sick.

7. Installation of a social service department to co-operate with existing agencies in the localities from which the patients come in the discovery of contact cases, the care of the patients' families and the removal of the causes which have operated to produce the disease.

Psychology and Medicine.

A new step of progress in the service of the Extension Division of the University of California was made at Oakland on Wednesday, November 12, when Professor George M. Stratton of the psychology department of the University began a course of lectures on Psychology in its relation to Medicine, before more than twenty physicians and dentists.

The class was inaugurated with a dinner given in the Hotel Oakland to Professor Leon J. Richardson, director of University Extension, and Dr. Stratton, the lecturer.

As explained by Professor Richardson, this course marks a new step in the development of the University's policy, in that the University for the first time is prepared to offer its most advanced and highly technical courses to any group of citizens qualified to take the instruction. This plan will be carried out wherever such a group of persons makes application for a course, provided the professor in charge of the subject can find time in his work on the campus to deliver the lectures.

The University is now considering having Professor Stratton conduct a similar course of lectures in San Francisco beginning in January.

The following physicians and dentists of Oakland registered in Professor Stratton's course, given in the Dalziel Building:

Dr. Stanley F. Berry, Dr. Herbert J. Samuels, Dr. J. Louis Lohse, Dr. William S. Kuder, Dr. Daniel Crosby, Dr. J. W. Stark, Dr. Ergo Majors, Dr. F. R. Makinson, Dr. C. H. Rowe, Dr. Florence Sylvester, Dr. Francis M. Shook, Dr. Roderic O'Conner, Dr. A. M. Smith, Dr. J. W. Calkins, Dr. J. F. McMath, Dr. C. F. Jarvis, Dr. William Porter, Dr. Harry P. Carleton, Dr. Ruby L. Cunningham, Dr. J. L. Pease, Dr. L. P. Adams, Dr. Richard A. Bolt.

CONTRA COSTA COUNTY.

The Contra Costa County Medical Society met in regular monthly meeting the evening of November 1, 1919, at the home of Dr. W. E. Cunningham of Richmond.

The program was arranged with Drs. J. Wilson Shiels and Harold Brunn of San Francisco as the speakers of the evening. The one made a plea "For a more thorough examination of the head and neck; for the more perfect diagnosis of disease," and the other talked on "The surgical diseases of the gall bladder." Both papers were highly in-

structive and were appreciated by all the members present.

It was voted to hold our next annual meeting and banquet at the Hotel Oakland on the evening of November 29th, after which the entire society with their ladies will attend a theater party.

After the transaction of the regular business Mrs. Cunningham served a supper interspersed with good music and cigars which kept all present until the "small hours."

Those present were: Drs. J. Wilson Shiels, Hall Vestal, L. S. Hely, Harold Brunn, U. S. Abbott, J. Beard, C. T. Wetmore, H. N. Belgum, C. R. Lipp and wife, C. R. Blake, E. Merrithew, Mrs. Jennie Charkoph, M. Keser, G. M. O'Malley, P. C. Campbell, W. E. Cunningham, C. L. Abbott, H. L. Carpenter, E. E. Johnson, W. W. Fraser.

The Contra Costa County Medical Society met at Martinez as the guests of the Martinez physicians, in the Court House on the evening of Saturday, September 20, 1919, at 9 o'clock, and listened to one of the most interesting and instructive lectures ever given to the society. Dr. Emmett Rixford of San Francisco was the speaker and spoke on fractures, dealing with the subject more particularly from the mechanical point of view.

Dr. Rixford was voted the thanks and appreciation of the Society.

After the transaction of the regular business and the adoption of a portion of the proposed new fee table, the members and visitors adjourned to a local restaurant where a very pleasing and appetizing lunch was served.

Those present at the meeting were: Drs. Wetmore, Camp, Johnson, Sweetser, Fitzgibbon, Neff, Cook, Campbell, Merrithew, Fitzpatrick, Bell, McCullough, Van Tyne and Bird.

KERN COUNTY.

The regular monthly meeting of the Kern County Medical Society was held at the County Hospital on the night of October 17, and was called to order by President Hamlin. The expected report of a committee appointed to draft a new fee-bill, together with an unusually interesting program called out a large attendance.

The scientific program, in charge of Drs. Jas. P. Hull and Joe Smith was now opened by Miss Bradley, the county and city bacteriologist, who discussed certain errors in the taking of specimens for laboratory examination. A guinea-pig, recently inoculated with suspected tuberculous material, was also dissected as a demonstration.

Dr. Hull now presented for diagnosis, a case of probable anesthetic leprosy in an adult male, native of Mexico, which proved interesting. A child with talipesequino-varus was anesthetized and the forcible correction of that deformity was demonstrated by Dr. Hull.

Dr. Joe Smith presented a discussion of coxa vara, with X-ray pictures of a case, and also of a probable beginning case in a young girl.

Dr. Hull also presented a case illustrating a remarkably good functional result in an old infected compound fracture of the tibia and fibula.

The society then adjourned to the dining room for refreshments and relaxation, both of which were enjoyed by all present.

LOS ANGELES COUNTY.

Medical meeting of October 16, 1919, took place at 8:15 p. m. in the Normal Hill Center Auditorium. Dr. W. T. McArthur, presiding, mentioned that the Arrow Theater of the Hamburger building is no longer available as a meeting place and that the Normal Hill Center Auditorium will only serve for this time. The Friday Morning Club will probably be our future quarters.

The Nurse Anesthetist Condemned.

At the regular meeting of the Los Angeles County Medical Association, October 16, 1919, an instructive and intensely interesting paper was presented by Dr. Walter R. Crane, entitled "The Lay Anesthetist."

The paper dealt comprehensively with every phase of the situation involved in the use of "Anesthetic Technicians," laying emphasis on the danger and injustice to the public, and the growing opposition on the part of ethical members of the profession to the use of the non-medical, or nurse anesthetist, who, although without basic medical training and with only superficial technical knowledge of etherization, is nevertheless, in reality, intrusted with the patient's life.

He quoted extensively from authorities and observers all over this country and abroad regarding this subject, showing that the consensus of opinion is that lay anesthetists have no place in properly regulated hospitals, or in the private employ of surgeons; that the lives of patients are unduly jeopardized merely for the financial remuneration of the individual or concern employing them.

He cited various authorities in other states than California regarding the legal aspect, and the opinions were to the effect that the surgeon who employs, or the hospital which countenances such practices is liable in case of any accident which may occur either directly or indirectly as a result of anesthesia so administered.

The paper was extensively and favorably discussed by many present and at the close, the following motion was introduced and unanimously adopted by rising vote:

"Resolved, That the Los Angeles County Medical Association go on record as in favor of the limitation of the practice of anesthesia to regularly licensed physicians and surgeons."

"Clinical Interpretation of Scarletinaid Rashes" was discussed by Dr. Moses Scholtz.

Scarlet fever is not a well defined clinical unit; it is subject to many variations and anomalies and its diagnosis can not be made on the skin symptoms alone but mainly on the streptococci born complications, suppurating glands, angina and glomerular nephritis, and the spreading of contagion. Desquamation is merely an expression of the intensity of the preceding erythema and it has no pathognomonic significance. Scarletinaid erythema is also not an independent entity but merely a symptomatic rash caused by all varieties of systemic toxins.

The differentiation of scarlatinoid erythemata can not be made on purely dermatological grounds but essentially on the associated clinical symptoms and the mode of development.

Nosologically scarlatinoid rashes should be regarded as an erythematous type of the great generic group of erythema multiforme.

Spontaneous Rupture of Left Ventricle.

Carl Johnson, M. D.

This patient, a man of sixty, while lacing his shoes, suddenly pitched forward to the floor and died. Had been blind for several years. There was no history or symptoms of syphilis. He had been in good health, doing such work as gardening and chopping wood, but had not seemed as strong during the past few months as usual. He was, however in about his ordinary health until six days before his death.

At that time he had severe pains in the gastric region during the night and was given an opiate. His temperature was normal, pulse 76, of good quality but intermitting two or three times per minute. The heart sounds were normal except for some indistinctness, or a distant quality. He complained of pains, principally in his stomach, but also extending down both arms.

He was given two grains of calomel, followed by a saline, and felt much better the following day. His illness was attributed to fish which he had eaten eighteen hours before the onset of his illness, and which had been cooked twenty-four hours at the time he ate it.

Was seen again three days later two days before his death. At that time the only pain was under his left shoulder blade. This had been quite severe at times, but stopped entirely, and he had no more pain until the time of his death. His temperature at this time was normal, pulse 74, regular, and the heart sounds were normal, but indistinct.

He was apparently in his usual health from this time until his death, two days later, except that he complained that he did not feel like smoking. The morning of his death he ate breakfast as usual, shaved, took a bath, went upstairs to his room and lay down for a while, and evidently began dressing as he had laced one of his shoes when he was found dead by the side of the bed.

The autopsy, done a few hours after death, showed the pericardium filled with partly clotted blood, and a rupture an inch and a quarter long in the most prominent part of the left ventricle, in the center of a brownish degenerated area about the size of a silver dollar. The other organs were normal, except for a rather marked congestion of the kidneys. The heart valves were normal.

Dr. Grover kindly made an examination of the heart and submits the following report:

"Examination of ruptured heart was made by taking a section from the periphery of the rupture to a point about three centimeters away from the same, and a second section from another part of the ventricle which appeared to be normal.

"The section from the ruptured area shows a marked fatty degeneration or infiltration which has completely destroyed most of the muscle fibers, in the area near the rupture. The fibers further away show cloudy swelling, brown atrophy and necrosis. There is some inflammatory exudation in the area, consisting of polymorphonuclear leukocytes, endothelial leukocytes, eosinophiles, plasma, cells and fibroblasts.

"The other section shows more or less normal muscle fibers with here and there large collections of the same inflammatory cells noted in the other section, except that here there are almost no fibroblasts. There is evidence of myocarditis of rather long standing as shown by the large amount of fat and necrosis present, which so weakened the wall that the rupture occurred in the most necrotic portion. There is evidently an acute exacerbation of the process, as evidenced by the second section.

"Whether the myocarditis present is of infectious origin or whether it is due to some interference with the coronary artery, I am unable to say."

In view of all the facts, it would seem probable that there was a long standing degeneration of the heart muscle, probably caused by a lesion of the coronary artery, and that the fish poisoning started an acute inflammatory process which caused the rupture.

Dr. Walter Brem: The only case I have seen was a rupture of an aneurism of the ventricle. The rupture might have occurred without the fish poisoning, although the presence of polymorphonuclear leukocytes would indicate that that might have been the exciting cause.

Dr. Joseph King: Several cases have come under my observation. There is usually a history of severe pain, and the patient may live for some time after a small rupture. The pain is usually followed by a persistently rapid pulse, although the patient may feel fairly well.

Dr. George L. Cole: I was much interested in hearing Dr. Carl Johnson mention the fact of severe pain preceding the cardiac rupture. I witnessed the death in one case of cardiac rupture and

had the patient under observation for several days previous to death. The pain was of such a character that a number of years later when called in just after a sudden death and listening to the description of the symptoms and pains, I made a suggestion that when the case came to a post-mortem examination of the following morning they would find a perforation of the left ventricle near the septum. This proved to be true and I was given the epithet of a "wizard in diagnosis." The very great majority of perforations occur at this location, hence this part of it was easy. Another interesting item was the fact that within a few days previous to death I climbed two flights of stairs in company with this fatty degenerated heart and at the top of the stairs the one with the degenerated heart said: "Why, Dr. Cole, you are out of breath, you must be getting old." It was true that the owner of the degenerated heart showed no sign of shortness of breath or discomfort of any kind.

The Los Angeles School Children's Clinic and Dispensary.

By Courtesy of Dr. H. F. True, Director School Health Department.

The School Children's Clinic of Los Angeles is under the auspices of two institutions,—the Board of Education of Los Angeles and the Parent-Teachers' Federation of Los Angeles,—the former an official department of the city, and the latter, a semi-official organization; each school having its own local club and these clubs co-operating with and aiding the schools in many ways. The Board of Education maintains the Out-Patient clinic known as the O. T. Johnson Public School Dispensary, and the Parent-Teacher Federation is the patron organization of the dispensary.

The dispensary occupies a three-story, concrete building fully equipped, and with the following departments: General medical, general surgical, skin diseases, eye, ear, nose and throat, speech defects, corrective physical training and orthopedic, nervous conditions, osteopathic, and dental. All the above are actively operating and are overcrowded.

By a curious phase of the laws, school departments cannot legally purchase the following: Medicines, dental filling materials, spectacles, crutches or braces; these the Parent-Teacher Federation undertakes to provide.

The reception of October 30, 1919, was to better acquaint the members of the 200 local Parent-Teacher associations with the working of the Clinic, that they might increase the supplies above noted, the Dispensary having developed so rapidly as to out-strip the previous generosity of its patron.

The speakers were introduced by Mrs. Charles F. Gray, President of the Los Angeles Parent-Teachers' Federation. Mrs. Gray, herself speaking for the Federation, Mr. Melville Dozier spoke for the Board of Education, Dr. Herbert F. True, Director of the School Health Department of which the Dispensary is a division, spoke of the general work of the department, Dr. Geo. L. Leslie first Director of the Department and one of the principal organizers of the Dispensary spoke of the early work done by Miss Elizabeth McMannus, Mrs. Taylor and himself, and Dr. Irving R. Bancroft, the Superintendent of the Dispensary, who is in direct charge, then gave the address of the afternoon and told of the work done and its present needs. Before and after the short meeting the visitors inspected the various departments and watched the doctors, dentists and nurses at work. The little children, themselves, happily greeted the distinguished guests and explained their own conditions in a way that surprised all, showing that among other things the Los Angeles school system teaches keen observation.

Miscellaneous. Narcotic Clinic Assured.

Los Angeles will establish a municipal dispensary and clinic for the decreasing dosage treatment of narcotic addicts. This was settled definitely at a meeting of the City Council after the councilmen listened to the amazing story of drug addiction, not alone in this city, but throughout the United States, as related by Collector of Internal Revenue John P. Carter, Health Commissioner L. M. Powers, Dr. John V. Barrow, Dr. Ross Moore, Dr. Dudley Fulton and others representing the County Medical Association.

The municipal clinic and dispensary will be established in the old Temple block. It will be open mornings and evenings and will be in charge of physicians working under the supervision of the health commissioner, a recognized druggist of ability, and nurses. Morphine and other narcotics will be prescribed at a cost a trifle above the wholesale price, and inside of three or four months the clinic will be on a self-sustaining basis, it is believed.

Collector Carter informed his audience that New York, New Orleans and Memphis already have established clinics. The New Orleans plan will be followed here. There was no publicity attached, the number of addicts treated finally reached 800, but as the treatment progressed it was greatly reduced, dropping to about 20 a day.

Happy with the success of the local campaign, Collector Carter will at once proceed to other cities in Southern California to continue the campaign.

Anti-Tuberculosis Association Closes at Long Beach.

With Dr. W. Jarvis Barlow of Los Angeles, president of the California Tuberculosis Association, presiding, the Southwestern Tuberculosis Association's three days' convention in Long Beach came to a successful close with a big public meeting. More than 400 delegates and several hundred interested citizens were in attendance. The Red Cross Peace Program and its relation to the public health was the topic of an interesting address delivered at the closing session by Dr. Livingston Ferrand, chairman of the central committee of the American Red Cross of Washington, D. C.

Dr. James Alexander Miller, medical adviser of the Rockefeller Commission in France during the war, told of his experiences with the disease in the ranks of the overseas forces of this country, and of the lessons that could be learned in fighting the plague as a result of the world conflict.

Dr. Wm. Palmer Lucas, chief of the children's department of the University of California, also discoursed on lessons from abroad and told how the experiences of other countries in wiping out the peril could successfully be applied to the United States.

At a meeting at the headquarters of the delegates to the annual convention, a resolution was adopted petitioning the United States Senate to introduce and pass a bill creating a division of tuberculosis in the public health service, in view of the fact that among contagious diseases the white plague is the greatest single menace to the nation.

Funds for Baby Hospital.

For twelve years Maternity Cottage has been aiding prospective mothers who are too poor to pay for necessary hospital treatment. The need of a new hospital building to care for the many women who apply for aid has become so great that plans have been prepared for a hospital and mothers of the city have been asked particularly to contribute to the fund needed.

In the past twelve years, more than 3000 mothers have been cared for, and after the planned

additions are built the facilities of the institution will be more than doubled. The Cottage is located at 127 South Utah St. Contributions may be sent to Mrs. Wm. Baurhyte, 1033 Edgeware Road, the president, who is in charge of the campaign to raise funds.

New Hospital for Whittier.

The new Milhous Memorial Hospital is a project made possible by the donation of \$50,000 to the city by Mr. and Mrs. Wm. Milhous, public spirited citizens of that place.

The building, construction of which will start within a short time, will stand in Alta Park, a slightly public recreation ground overlooking the surrounding valley. It will be a general hospital designed for a minimum of 30 beds, with one-story wings at either end accommodating the operating rooms and accessories and maternity hospital. Plans were prepared by architects Allison & Allison of Los Angeles.

The center portion of the building is 117 feet long and two stories high. It is divided into wards of from one to four beds each, a number of which have communicating bath rooms. The main corridor running through the building opens out on ample solariums at either end. In architectural style the building will suggest the colonial, with broad paved and grass terraces in front adapting it to the slightly location on the hillside overlooking Whittier. Masonry fireproof construction will be used. It will be equipped throughout with modern hospital installations. The cost of the equipment will be exclusive of the \$50,000 available for building purposes.

The hospital board includes A. C. Johnson, chairman; O. H. Barr, secretary; F. W. Hadley, A. C. Maple, Wm. Minget, Dr. A. Rosenberger and Wm. Milhous.

Maternity Cottage Store Seeks Gifts.

An appeal for cast-off clothing or any articles that can be repaired and sold has been made by the directors of the Maternity Cottage at 127 So. Utah St. All articles sent to the home are repaired and sold at a second-hand store conducted on the property owned by the Cottage, the receipts being used for the work of caring for expectant mothers who come to the Cottage for assistance.

The little store has a history of twelve years' useful work. The first month's receipts from the store years ago helped to start the work of Maternity Cottage, and since then it has contributed regularly to the funds of the institution.

Clothing is sold at a small profit, and many young mothers have been enabled to purchase articles there for their children. Youngsters attending school have been equipped with everything they need in the way of clothing from the counters of the store. It was stated that any article would be acceptable. Contributions should be sent to the Cottage.

PERSONALS

Physicians Notified of Service Citation.

Dr. J. J. A. Van Kaathoven, local physician, was honored with a citation by General Pershing on April 19, 1919, "for exceptional, meritorious and conspicuous service," while with Base Hospital No. 35 in France.

Dr. Van Kaathoven's wife was Southern California chairman of the Junior Red Cross, during the war.

To Study Leprosy on Two Year Trip.

Dr. Chas. M. Zerfing, former police surgeon of Los Angeles, has applied for a passport to go abroad on scientific work. He expects to visit China, Japan, Hongkong, the Straits Settlements, India, Italy, France, Switzerland, Norway, Sweden and Great Britain, to make a study of leprosy and influenza. Dr. Zerfing will leave Vancouver on

November 27. He expects to be absent for two years.

Dr. Murietta Back.

That Dr. Jack Murietta is home again after an absence of two and a half years is welcome news. He was senior surgeon on one of the big transports, and left the first week of the war, and with the exception of Capt. Frank Simpson of the naval aviation, was longest in the service of any of the men who left at the beginning of the war. Morgan O. Adams, who was a lieutenant commander, went at the same time.

Army Doctor Coming to County Hospital.

Dr. J. Mark Lacey, who was connected with the Los Angeles County Hospital about six years and resigned to enter private practice, has been succeeded by Dr. Neal Laramore Wood as first assistant superintendent of charities and medical director for the department of charities of the County Hospital. He assumes his duties Nov. 1st.

Dr. Wood headed the eligible list of eighteen candidates for the position. Dr. Robert A. Jones passed No. 2 and Dr. Edwin D. Ward No. 3. The Board of Examiners included Dr. Fitch C. E. Mattison, Dr. Egerton Crispin, Dr. John V. Barrow, all of this city, and Dr. R. G. Brodrick of San Francisco.

Dr. Wood, who is 35 years old, is a graduate of the high school at Ann Arbor, Mich. He attended the University of Michigan, graduating in 1908; was instructor in the University of Michigan Medical School from 1908 to 1911. He attended the Army Medical School in Washington, D. C., was honor graduate in 1912 and served as instructor, physician and surgeon, sanitarian and hospital administrator in the United States Army from 1912 to 1918, being advanced from the rank of Lieutenant to that of Lieutenant Colonel. He saw active field service as medical officer on the Arizona border and also served at Fort Apache, Ariz. He commanded base hospitals at Camp Custer, Battle Creek and Pittsburgh.

Injuries Not Serious.

The German artillery shell which struck the American relief headquarters at Riga this week and wounded Dr. Thomas J. Orbison of Pasadena and Los Angeles, head of the American mission, did not fatally injure the Californian.

Friends here of Dr. Orbison received word in telegrams from Congressman C. H. Randall stating he had obtained through the state department advices that Dr. Orbison's hurts were not serious and that he was continuing "on the job" in Riga.

Before he went into army service more than a year ago, Dr. Orbison was head of the psychopathic ward of the County Hospital. He holds the rank of Major in the army.

Pathologist Returns.

The friends of Capt. Roy Hammack were pleasantly surprised a few days ago when the Captain returned from France, where he had been engaged as pathologist and bacteriologist in the Medical Corps of the Army. He entered the service two years ago and went to Camp Lewis; from there, directly to France where he was assigned to a mobile hospital unit and has seen service in several engagements.

After the armistice, he was with the army of occupation in Germany, located in Coblenz most of the time, returning to this country and demobilizing at the Presidio, San Francisco.

He was formerly Assistant Professor of Pathology and Bacteriology in the University of Philippines, Manila, and at one time was city bacteriologist in Los Angeles. At the time of the receipt of his commission he had been pathologist and bacteriologist at the Los Angeles County Hospital for some two years.

Returned.

Dr. Chester H. Bowers, Suite 924 Trust and Savings Bldg. Practice limited to diseases and surgery of the ear, nose and throat.

Louis Felsenthal, D. D. S., M. D., 902 I. N. Van Nuys Bldg. Oral Diagnosis and Surgery.

Dr. John C. Irwin has returned from service. Suite 523 Investment Bldg. Obstetrics and Gynecology.

Dr. H. S. Muckleston, 912 Van Nuys Bldg. Otolaryngology.

Dr. John W. Nevius, 718 Brockman Bldg.

MENDOCINO COUNTY.

On Saturday evening November 1, a regular meeting was held at Ukiah, Vice-President Samuel L. Rea, M. D., in the chair.

Present—Drs. S. L. Rea, George W. Stout, L. K. Van Allen and O. H. Beckman.

This meeting resolved to lower the county dues to \$1 per annum, to take effect January 1, 1920.

Dr. Edward C. Bennett, Covelo, was elected to membership.

It was also decided that as Saturdays and Mondays were busy days with the Ukiah fraternity those days would not be chosen for regular meetings hereafter. Willits is to be the next meeting place.

Dr. E. H. Sawyer, Navarro, has left our county, and it is rumored that he has driven his foundation piles for a new place to practice somewhere in Oregon. May good luck and prosperity graft themselves upon him and his family. Dr. Sawyer, please let us know your present address.

This Society still has one member in active service in the Navy, Lieut. Reuben H. Hunt, M. C., U. S. N. His letter is of some interest and therefore reproduced here.

Fourth Naval District, Philadelphia, Pa.
N. O. T. S. Navy Yard, Sept. 28, '19.

Dear Dr. Beckman:

I'll admit that you were quite justified in stating that I was lost. Last night Mrs. Hunt and I went to a Medical Library and found the California State Medical Journal and there saw your notice. It wasn't like reading one's death notice but at the same time gave one a sort of a shock. Oh, I'll acknowledge that I have not done my part but you know right after the armistice we all seemed to quit; things did not have the same interest after that.

About the time of the armistice I was on a mother ship anchored in Brest harbor. That duty gave me more medical stuff but did not have the thrills of the destroyer duty, but at that time there were no more thrills. I had a leave, went to Paris, met Mrs. Hunt and we went to Nice and to Monte Carlo. Had a nice time there but could not stay long enough. In a little while we worked it so that Mrs. Hunt had duty in Brest and we thought we were fixed fine and dandy when along came orders for me and I was shipped back to New York on the Leviathan. Then the next thing to do was to get my good wife in New York. Well that took about a month and about as soon as that was done along came orders for me to a ship—the U. S. S. El Sol. We put that ship in commission as a troop-carrying ship. She had been carrying cargo during the war.

Made a trip to Bordeaux and returned to Newport News. Made another trip to Brest and back with troops to Philadelphia, and then the ship was ordered out of commission. Saying "in commission" and "out of commission" does not take long but the process takes quite a while and is rather a discouraging job, for there seems to be so many things to do that no one seems to know how to go about.

I am now on temporary duty at the Navy Yard. I just reported yesterday so I don't know much about it yet. It is duty with the N. O. T. S., which means Naval Overseas Transportation Service. I do not think that it will last very long because there are no more transports. What after that? Well, that is part of the joy of military duty. You never know. I have made several requests to be ordered to the Pacific Coast but so far I have received nothing but promises. I do not know what they are going to do about letting me out of the service. You know last year they took me out of the Reserve and put me in the regular Navy with the temporary rank of lieutenant. They tell us that the temporaries will be let out in July, 1920; so I have a little bit to do yet.

Yours truly,

R. H. HUNT.

ORANGE COUNTY.

The regular November meeting of the Orange County Medical Society took place at the Public Library on the evening of the 4th. The paper of the evening was given by Dr. R. A. Cushman of Santa Ana and entitled "Better Men." The doctor showed in his valuable thesis that there was a great tendency on the part of the public to consider the underlying principles of eugenics and that was promise of more being done for the betterment and uplift of the race.

A committee consisting of Drs. Ball, Johnston and Shank was appointed to revise the fee bill. There has been little or no increase in rates in Orange County and many of the members are feeling the advanced prices incident to the "H. C. L." to such an extent that it has become necessary to make an increase in the fee bill.

Dr. H. D. Newkirk of Minneapolis has accepted a position with Drs. Johnston and Wickett of Anaheim. The doctor will devote his time exclusively to his specialty—Eye, Ear, Nose and Throat. Dr. Newkirk entertained the eye, ear, nose and throat men of the county with dinner at the Oyster Loaf Cafe with a result that a more friendly and cordial feeling is bound to exist in this community.

Drs. Zaiser and Johnston have returned from visiting eastern clinics.

SAN BERNARDINO COUNTY.

At the November meeting of the San Bernardino County Medical Society it was voted that the Subscription Committee for the League for the Conservation of Public Health see every doctor in the county whether a member of the Society or not and ask him to subscribe.

The committee on the revision of the fee schedule reported.

Drs. E. O. J. Eytinge, W. D. Lenker and R. W. Prince were elected to membership in the Society.

Dr. C. L. Curtiss of Redlands gave a report of the Southwestern Tuberculosis Conference in which he discussed the importance of education, especially instruction in Hygiene in the schools, the removal of the child from its tubercular surrounding, even its mother, if tubercular, and laws by which carrier cases can be controlled, concluding that the solution of the tubercular problem is in the next generation.

Dr. L. M. Ryan of Banning read a paper on "Pulmonary and Laryngeal Tuberculosis as Related to Contagion." He covered the subject of racial and family tendencies and childhood infections, massive infections in adults, re-infections and the question of carriers. His answer to the tubercular problem in general was education.

Dr. A. L. Bramkamp of Banning in his paper on "Mistakes in Diagnosis in Conditions Considered

Well Advanced Tubercular Disease," discussed the differential diagnosis with well chosen statistics which showed many errors in diagnosis as proved by autopsy, in cases that appeared very apparently tuberculosis.

There were many men present from the Riverside County Medical Society.

Following the meeting, refreshments were served by the nurses of the County Hospital where the meeting was held.

The program follows:

Report of the Southwestern Tuberculosis Conference, Dr. C. L. Curtiss, Redlands.

The Care of Pulmonary and Laryngeal Tuberculosis as Related to Contagion, Dr. L. M. Ryan, Banning.

Mistakes in Diagnosis in Conditions Considered Well Advanced Tuberculosis, Dr. A. L. Bramkamp, Banning.

Applications for Membership, Dr. W. D. Lenker, Dr. E. J. Eytinge, Dr. R. W. Prince.

The president has appointed the following committees:

Board of Censors—Dr. W. B. Power, chairman; Drs. J. H. Evans, E. S. Bolton, J. A. Champion, D. C. Strong.

Finance—Dr. C. G. Hilliard, chairman; Drs. P. M. Savage, J. A. Shreck.

Program—The President and Secretary, Drs. L. M. Coy, N. G. Evans.

Buffet luncheon.

SAN DIEGO COUNTY.

The annual election of the Society will be held on December 9th. Polls open from 10 to 6. Official tellers: Drs. J. F. Grant, N. Molitor, H. M. Wegeforth.

The following new members have been received during the past few months: Drs. P. B. Wing, H. P. Hendricks, A. D. Butterfield, John W. Warren, H. L. Hildreth, Charles W. Brown, F. A. Lee, Alice H. Crandall, J. H. Young, R. G. Hulbert, Lorin F. Wood, Sr. Major I. F. Percy has been received into associate membership.

On the evening of October 14th the Society spent an enjoyable clinical evening at the County Hospital. Cases were presented by Drs. Churchill, Grant, Kinney, Little, Wier, Wicherski and Wilson of the visiting staff, and also by Drs. Psota and Nerad of the house staff. The evening was brought to a close with the serving of refreshments by the nurses. Over fifty physicians, many of them from the outlying towns, enjoyed an hour or two of social as well as intellectual uplift.

On October 28th the evening was given over to the discussion of the conservation of the health of the child. Dr. H. B. Wilson presented a plea for more intelligent care during the first two years of the child's life, while Dr. Frances M. Allen spoke entertainingly on the special problems of the child during the pre-school age from two to six years. Discussions were liberal and fruitful.

The following members of the County Society have been appointed to service at the County Hospital beginning November 1:

Internal Medicine—Drs. Emil C. Black, Carl S. Owen.

Gynecology—Dr. H. P. Newman.

Tuberculosis (at Vauclain Home)—Dr. J. A. Parks.

The Council of the Society has endorsed the move on the part of the Collector of Internal Revenue for this district to establish a clinic for the treatment of drug addicts.

Dr. T. C. Pounds is being welcomed home by his many friends after three years' service in the Navy.

Dr. H. C. Loos (Lt.-Col. M. C., U. S. A.) has returned to civil practice with offices in the Watts building.

SAN FRANCISCO COUNTY. Society Meetings.

Proceedings of the San Francisco County Medical Society.

During the month of October, 1919, the following meetings were held:

Tuesday, October 7—Section on Medicine.

1. Paroxysmal tachycardia and other forms of arrhythmia in one individual. H. I. Wiel and M. F. Frandy.
2. Spastic paraplegia secondary to gas poisoning. O. G. Freyermuth.
3. Malingering. J. H. Catton.
4. Rupture of the uterus. A. F. Maxwell.

Tuesday, October 14—General Meeting.

Clinical examination of the head and neck, with particular reference to the brain stem, in the effort to simplify the diagnosis of chronic disorders thereof. J. W. Shiels.

Tuesday, October 21—Section on Surgery.

St. Luke's Hospital Clinical evening.

Meeting held at the hospital.

1. War-time apparatus as used in treatment of fractures in civil life. G. J. McChesney.
2. Chronic appendicitis. Wm. Kenney.
3. Fractional method of stomach analysis. E. V. Knapp.
4. The electrocardiograph. R. B. Tupper.
5. Differentiation between a diagnosis and a clinical fact. H. M. Sherman.

Tuesday, October 28—Section on Eye, Ear, Nose and Throat.

1. Demonstrations of cases and of treatments. Hans Barkan, H. A. Fletcher and W. S. Franklin.
2. Angioneurotic edema of the iris with secondary glaucoma. Hans Barkan.
3. Discussion of two cases of cerebellar tumor. H. B. Graham.
4. Misuses of the Voice. Miss N. J. Pooch Van Baagen (The Hague).

SAN JOAQUIN COUNTY.

The regular monthly meeting of the San Joaquin County Medical Society was held Friday evening, October 31, at the Chamber of Commerce quarters, President E. A. Arthur presiding. Those present were: Drs. E. A. Arthur, L. Dozier, S. F. Priestly, J. T. Davison, L. Haight, J. P. Martin, G. J. Vischi, Mary Taylor, Grace McCoskey, Margaret Smythe, E. E. Selleck, C. F. English, E. A. Edgerton, F. J. Conzelman, J. W. Barnes, J. M. Gardner, Hudson Smythe, N. E. Williamson, J. M. Hench, W. J. Young, B. F. Walker, A. H. McLeish, F. S. Marnell, Howard Naffziger and D. R. Powell.

The paper of the evening on "Fracture of the Skull" was presented by Dr. Howard Naffziger of San Francisco. Dr. Naffziger, who is in charge of the brain and nerve surgery of the University of California, and who but recently served as Lieutenant-Colonel in the Division of brain surgery with the American expeditionary forces in France was able to speak with authority, based upon wide experience in his specialty. He spoke particularly of the type of case showing profound unconsciousness, slow pulse rate and other evidences of increased cranial pressure which can be relieved by a subtemporal decompression. The technic of this operation was illustrated by pictures thrown on the screen thereby making it more vivid and clear to his audience. After a short discussion Dr. Naffziger answered various questions which were presented to him. The meeting adjourned at 11 p. m.

SHASTA COUNTY.

At the regular meeting of the Shasta County Musical Society held October 18, 1919, Dr. A. B. Gilliland of Cottonwood was elected president of the Society. Dr. C. A. Mueller of Redding was

re-elected Secretary and Treasurer for the coming year. Dr. Ferdinand Sembel is holdover delegate to the State Medical Society convention with Dr. C. E. Reed as alternate.

TULARE COUNTY.

The regular meeting of the Tulare County Medical Society was held at Hotel Johnson, Visalia, October 19. Following the banquet Dr. E. H. Falconer, recently returned from service in France, gave a most interesting discussion upon the problems of blood transfusion as recently worked out both in military and civil practice.

The November meeting was held at the same place upon the 9th inst., when Dr. Lockwood of Pasadena presented a comprehensive review of the more recent fracture work as it occurred under his service in France.

The death of Dr. T. D. Blodgett of Tulare from a septic wound, was deeply felt by the entire local medical fraternity. He was former president of the Society and one of its most enthusiastic and faithful members, as well as one of the foremost practitioners of the county.

Post-Graduate Schedule for December

San Francisco.

Lane Medical Lectures, 8:15 p. m., December 8, 9, 10, 11, 12, 1919. Lane Hall, Sacramento and Webster streets, San Francisco. Dr. Alonzo E. Taylor.

The Feeding of the Nations at War.

- I. The Problem of Feeding a Nation.
- II. The Feeding of the United Kingdom.
- III. The Feeding of France and Italy.
- IV. The Feeding of the Enemy States.
- V. The Food Problem of Europe After the War.

San Francisco Colloquia

October 16, 1919.

The Surgical Colloquium was conducted by Dr. Harold Brun.

1. Injection of whole blood into old ununited fracture of hip in a man showing some evidence of Pituitary disease.
2. Operation upon chest using Lilienthal incision, for cleaning out cavity following old Empyema.

October 17, 1919.

The Medical Colloquium was conducted by Dr. J. M. Wolfsohn.

1. Case of Tabes.
2. Discussion of case of Juvenile Paresis simulating Multiple Sclerosis.
3. Demonstration of case of Aphasia.
4. Interesting lecture on the Anatomy and Physiology of the brain, etc.

October 23, 1919.

Surgical Colloquium, Dr. J. R. Dillon.

1. Nephrectomy for tuberculosis of kidney. (Specimen showed numerous abscesses.)
2. Young's punch operation for contraction of neck of bladder.

Dr. H. W. Gibbons:

3. Laparotomy. Hydrosalpinx and sub-acute appendix.

October 24, 1919.

The Medical Colloquium was conducted by Dr. H. H. Yerington.

The following cases were demonstrated and discussed:

1. Case of miliary, pulmonary tuberculosis in an infant.
2. Case of Rickets.
3. Case of Bow-legs after operation. (Demonstrated by Dr. S. Nicholas Jacobs.)
4. Amoebic Dysentery of five years' duration with cure.

5. Demonstration of brain (post-mortem) with Necrosis of Cortex due to Salvarsan injection through anterior Fontanelle.

October 30, 1919.

Surgical Colloquium, Dr. J. R. Dillon.

1. Suprapubic Prostatectomy.
Dr. Emmet Rixford;
2. Plastic operation on hand following infection.
3. Correction of Bow-legs due to Rickets in child.
4. Demonstration of post-operative cases.

October 31, 1919.

The Medical Colloquium was conducted by Dr. Harold P. Hill.

1. Demonstration and discussion of three cases of Ascites with different etiological factors, viz.: (a) Sclerosis of Liver, (b) Cardiac decompensation, (c) Tubercular Peritonitis.
2. A case of marked Jaundice with Ascites.
3. Case of Malignancy, probably of the head of the Pancreas.

State Board of Medical Examiners

The Board of Medical Examiners held the annual meeting of the Board at the State Capitol, Sacramento, October 20-23, inclusive.

Twenty-eight applicants appeared for the written examination for Physicians' and Surgeons' certificate. Three midwives wrote the examination, two of whom wrote in the Japanese language.

An unusually large number of reciprocity applicants filed applications with the Board, the increase no doubt being due to the men who have returned from government service, having given up their home locations and knowing that it would be necessary for them to re-establish themselves, have decided that the mild climate of California affords far greater inducements than the rigors of the eastern winters. Sixty-two direct reciprocity certificates were granted and thirty-three qualified for reciprocity certificates after oral examination with five failures.

The College Investigating Committee reported on the various educational institutions in the State of California. The report leaves the College of Osteopathic Physicians and Surgeons in the same position, being approved as qualifying applicants for written examination for Drugless Practitioner certificate, inasmuch as a motion to approve the College of Osteopathic Physicians and Surgeons as qualifying applicants for a Physicians' and Surgeons' certificate failed to carry.

A number of citations were filed for hearing at the meeting with the following results:

J. Lafayette Berry, charged with practicing under a name other than his own—i. e., "K. P. Bloodless Surgeon"—was found guilty and his license to practice in the State of California revoked.

Dr. May Minaker, charged with violation of Subdivision 1, Section 14, was found guilty and her license to practice in the State of California revoked.

Irving L. Ward, Yreka, charged with violation of the 6th Subdivision of Section 14 of the Medical Practice Act, was found not guilty and the charge dismissed.

William L. Grant, charged with violation of Subdivision 10, Section 14, was found not guilty.

James E. Thompson, charged with the violation of the 1st Subdivision of Section 14, was unable to appear owing to confinement in the Alameda County jail, and the case went over until the February meeting of the Board.

The case of Galen R. Hickok was put over to the February meeting, inasmuch as he presented a Doctor's Certificate signed by Dr. W. A. Naylor, stating that Hickok was recovering from influenza and unable to appear.

The cases of James V. Calhoun, Donald Eugene Morris, Fohraim Northcott, C. C. Baker, Geo. W. O'Donnell and Harry Seth Walters were put over

to a subsequent meeting of the Board.

Gideon M. Freeman, whose license was revoked by the Board at the June 1919 meeting, requested reconsideration which the Board denied.

Counsel appeared for Dr. Geo. H. Richardson of Los Angeles, whose certificate was revoked at the March 1919 meeting of the Board and petitioned for the restoration of the license, which was denied.

James Decker, reciprocity applicant from Colorado, was denied a certificate.

John V. Martin was appointed Associate Counsel of the Board for Southern California, to assist Chief Counsel Harry Encell in the legal work of the Board.

The report of the Secretary of the Board showed receipts, up to October 1, 1919, amounting to \$53,410.31, and expenditures for the same period of 1919 amounting to \$36,706.89.

The legal reports show unusual activity in the matter of investigation of violators throughout the State of California. The Southern Department reported \$6,100 in fines since January 1, 1919, as the result of the following summary of activities: Guilty, 37; dismissed, 8; no information filed, 2; acquitted, 2; pending, 15; total, 64.

The report of Northern California showed active investigation in San Francisco, Oakland, Stockton, Sacramento, Modesto, Fresno.

The increased income from annual tax has provided a fund which will permit the development of a most efficient investigation department.

The meeting dates adopted for the year 1920 are: February 16-19, Los Angeles; June 28-July 1, San Francisco; October 18-21, Sacramento.

HYGIENE AND SANITATION.

ALFRED J. SCOTT, M. D.
(For Physicians and Surgeons, Drugless Practitioners and Midwives.)

October 23, 1919, 8:30-10:30 a. m.)

(Answer ten questions only.)

1. Differentiate between endemic, epidemic, pandemic.
Example of diseases causing same.
2. What is meant by natural and acquired immunity from disease?
Example of each.
3. What are the principal means which you would employ for the prevention of the spread of infectious diseases?
4. Give the special hygiene of factories in which women and children are employed.
5. How may the presence of a typhoid carrier be detected?
6. Name four diseases, to which the human race is susceptible, that may be transmitted through cow's milk.
7. What interpretation can be placed on the relative amount of nitrates and nitrites in well water?
8. What conditions and diseases in animals render their flesh unfit for human food?
9. Name the filth diseases, give the prophylaxis of same.
10. How much fresh air is required for normal respiration during the twenty-four hours?
11. What precautions should a physician observe to avoid carrying a contagious disease?
12. What hygienic precautions should be observed by a pregnant woman?

CHEMISTRY AND TOXICOLOGY.

HARRY V. BROWN, M. D.
(Physicians and Surgeons.)

October 23, 1919, 2:00-4:00 p. m.

(Answer ten questions only.)

1. What are the metals of the arsenic group?
2. What two solutions of arsenic are official?
3. Silver Nitrate. Give its appearance; how prepared; symbol; synonyms. What per cent. may be used in the eye and in the throat?
4. What do you understand by the term colloidal chemistry?
5. What is a calorie? Explain the calorific method of feeding.
6. Classify foods. Discuss one class.
7. What are enzymes? Discuss their characteristics.
8. (a) What constitutes metabolism?
(b) What is a nitrogenous equilibrium?
9. What is a lethal dose of
Tincture Aconito,
" Belladonna,
" Gelsemium?
10. What is the result of a tablespoonful of camphorated oil, if swallowed by a one-year old child?

11. Give symptoms and treatment of poisoning by wood alcohol.
12. What is the chemical cause of death in inhaling illuminating gas? Give treatment.

SURGERY.

P. T. PHILLIPS, M. D.
(For Physicians and Surgeons.)
October 22, 1919, 2:00-4:00 p. m.

(Answer ten questions only.)

1. Discuss acid intoxication following general anesthesia, its etiology, prognosis, prophylaxis and treatment.
2. Draw schematic diagram, antero-posterior, of a Potts fracture. Give treatment in detail.
3. Give the indications for operation in traumatic insanity.
4. Discuss congenital talipes.
(a) Theories as to cause.
(b) Varieties.
(c) When should treatment be instituted?
(d) Briefly describe treatment.
5. Give the diagnosis of stone in common duct. Describe in detail the surgical treatment.
6. Describe the pathology in dislocation of femur (hip joint). Name the varieties and give treatment for one.
7. When is taxis contra-indicated for the reduction of strangulated hernia? Describe its application in strangulated, oblique, inguinal hernia.
8. What conditions require tracheotomy, name the diseases in which they occur. Describe the operation.
9. Discuss briefly sacro-iliac relaxation.
10. Give the indications for paracentesis tympany. Describe the operation.
11. Give the symptoms of nephroptosis. Discuss briefly the treatment, with special reference as to relative value of operative and non-operative measures.
12. Give the different causes of traumatic keratitis, with the treatment.

GENERAL MEDICINE, INCLUDING CLINICAL MICROSCOPY.

HARRY E. ALDERSON, M. D., San Francisco.
(For Physicians and Surgeons only.)
October 21, 3:00-5:00 p. m.

(Answer ten questions only.)

1. A fat infant eight months old has urticaria, eczema and diarrhea, alternating with constipation. Discuss the clinical and laboratory diagnosis.
2. A young man has steadily developing blindness in one eye, ulcers in mouth and arthritis of several weeks' duration. Discuss probable diagnoses and prognosis.
3. A young woman has several deep, red, painful, roundish, semi-fluctuating swellings on both legs, arthritis and irregular temperature. Discuss differential diagnosis and treatment.
4. A young man shows increased sweating, nervousness, loss of weight and tachycardia. Discuss diagnosis and prognosis.
5. A young man has iritis, several genital ulcers and general adenopathy, all six weeks duration. Discuss fully clinical and laboratory diagnosis.
6. What probable significance would glycosuria, and slowly developing blindness, have in a young woman?
7. An infant has indigestion, refuses milk, is very fretful, has high temperature, and unilateral pain in neck. Discuss probable diagnosis and treatment.
8. A young man of dull appearance, thick skin, scanty hair growth, presents also bradycardia. Discuss diagnosis and treatment.
9. A young man has chancre and roseola luetica. When may he be permitted to marry?
10. A middle-aged woman presents rapidly developing inguinal and axillary adenitis, high temperature and great prostration. Discuss clinical and laboratory diagnosis.
11. Discuss briefly the etiology, symptoms and laboratory diagnosis of amebiasis.
12. A young woman has severe, acute inflammation (with oedema) of tonsils, throat and buccal mucosa, and fever. Discuss laboratory and clinical diagnosis and treatment.

GENERAL DIAGNOSIS.

HARRY E. ALDERSON, M. D., San Francisco.
(For Drugless Practitioners only.)
October 21, 3:00-5:00 p. m.

(Answer ten questions only.)

1. Discuss the significance of foetid breath.
2. A child has high temperature, sore throat, diarrhea, red tongue, and a generalized redness of the skin. Discuss the possible diagnoses.
3. A young man has patchy baldness, sore throat, malaise, swollen glands, and slight joint pains. Discuss the diagnosis.
4. A young woman has severe, sharp pain in right lumbar region. Discuss diagnosis.
5. An infant has unilateral stiff neck, fever, is very fretful and refuses its milk. Discuss briefly diagnosis.
6. Discuss briefly technique of blood pressure estimation (systolic and diastolic.)

7. Discuss diagnosis of ulcer of stomach.
8. Discuss the clinical diagnosis of bubonic plague.
9. Discuss the diagnosis of smallpox in its earliest phases.
10. A man has a hard non-inflammatory tumor near the knee. Discuss briefly diagnosis.
11. Discuss the probable causes of vertigo in a woman 40 years old.
12. Discuss the significance of persistent pain in the legs.

GYNECOLOGY AND OBSTETRICS.

ROBERT A. CAMPBELL, M. D.
(For Midwives only.)
October 22, 1919, 8:30-10:30 a. m.

(Answer ten questions only.)

1. (a) Name the internal genital organs.
(b) Name the external genital organs.
2. What are the causes of postpartum hemorrhage?
3. Give the treatment of post partum hemorrhage.
4. Discuss the artificial feeding of infants during the first three months.
5. Tell what you would do for the baby during the first 48 hours following birth.
6. Discuss ophthalmia neonatorum.
7. Name the articles required by law for a midwife to carry in her obstetrical bag.
8. Name the conditions in which a physician should be called.
9. On going to a case, tell what you would do preparatory for a delivery.
10. Discuss mastitis.
11. Discuss the use of antiseptics in obstetrics.
12. Discuss the care of the woman during the first two weeks following delivery.

OBSTETRICS AND GYNECOLOGY.

ROBERT A. CAMPBELL, M. D.
(For Physicians, Surgeons and Drugless Practitioners.)
October 22, 1919, 8:30-10:30 a. m.

(Answer ten questions only.)

1. Give differential diagnosis between right-sided salpingitis, tubal pregnancy and appendicitis.
2. Define menorrhagia, metrorrhagia, dysmenorrhoea, amenorrhoea, dystocia.
3. Give the origin and distribution of
(a) The blood supply of uterus and ovaries.
(b) Nerve supply of uterus and ovaries.
4. Differentiate a four months' pregnancy from four other conditions causing enlargement of the abdomen.
5. (a) Name the indications for version.
(b) Describe the operation of podalic version.
6. Describe the operation for vaginal hysterectomy.
7. Name the female genital organs.
(a) Internal. (b) External.
8. Post partum hemorrhage.
(a) Give four predisposing causes.
(b) Give four immediate causes.
(c) Give treatment.
9. Describe mechanism of labor in R. O. A. position.
10. Discuss vomiting of pregnancy.
11. Discuss artificial infant feeding during the first three months.
12. Describe the change in the foetal circulation upon ligation of the umbilical cord.

PATHOLOGY AND BACTERIOLOGY.

LEMUEL P. ADAMS, M. D.
(For Physicians, Surgeons and 2,000 Hour Drugless.)
October 22, 1919, 10:30-12:30.

(Answer ten questions only.)

1. Define the following terms:
Anemia, Hemorrhage,
Embollism, Edema,
Thrombosis, Inflammation,
Toxin, Atrophy,
Ptomaine, Degeneration,
Leucomaine, Necrosis,
Glycosuria, Tumor.
2. Give the etiology, microscopic pathology and results of an acute endocarditis.
3. Give the etiology and differential diagnosis of enlarged cervical lymph glands.
4. Give the etiology and morbid chemistry of fatty degeneration.
5. Name two malignant and five benign tumors.
6. Give the differential diagnosis in the gross between a malignant and benign tumor.
7. Name the types of pneumonitis. Give the differential diagnosis gross and microscopic between lobular pneumonia and multiple hemorrhagic infarcts of the lung.
8. What is the difference between active and passive immunity? Give an example of each.
9. Name four methods by which acquired immunity may be produced artificially and give an example of each method.
10. What is tuberculin? Why does the injection of tuberculin fail to produce a reaction in a healthy person? Why does it produce a reaction in an individual affected with tuberculosis? Why may it fail to produce a reaction in an individual that has recently reacted?
11. Explain what is meant by complement fixation and describe briefly the elements and principles involved.

12. Describe in detail how you would make a diagnosis in a case of suspected diphtheria; also name the organisms that might be mistaken for the Klebs-Loeffler bacillus.

ANATOMY AND HISTOLOGY.

WM. R. MOLONY, M. D.

(For Physicians, Surgeons and Drugless Practitioners.)
October 21, 1919, 10:30-12:30.

(Answer ten questions only.)

1. Describe the lachrymal apparatus.
2. Discuss the histology of the cornea.
3. Locate and give the relation of the prostate gland.
4. Give the histology of the prostate gland.
5. Locate and give relations of the parotid gland.
6. Give histology of the parotid gland.
7. If the radial (Musculo spiral) nerve be severed, what structure distal to the cut will be affected?
8. Indicate by diagram the important tracts, and the distribution of nerve tissue, in a cross section of the spinal cord in the mid-dorsal region.
9. Describe fully the sacro-iliac articulation.
10. Give origin, insertion and nerve supply of the sterno mastoid muscle; action when acting singly and together.
11. Locate and give relations of thyroid gland.
12. Give the histology of the thyroid gland.

PHYSIOLOGY.

C. J. GADDIS, D. O.

(For Physicians, Surgeons and Drugless Applicants.)
October 21, 1919, 8:30-10:30 a. m.

(Answer ten questions only.)

1. How is a normal body heat maintained? What are the physiological aspects of fever?
2. Discuss briefly (a) phagocytosis, (b) diapedesis.
3. What is the composition and the action of bile?
4. Classify and give function of white blood corpuscles.
5. Give the physiological action of the pneumogastric nerve.
6. Describe the heart sounds; what causes them?
7. Describe the process and stimulation of respiration.
8. Name the enzymes and describe their function.
9. Discuss the factors which maintain blood pressure.
10. Discuss cerebro-spinal fluid.
11. Describe lymph, its function, its circulation.
12. What is the effect of complete paralysis of the (a) third cranial nerve, (b) trigeminal.

PHYSIOLOGY AND ANATOMY.

C. J. GADDIS, D. O.

(For Midwives.)

October 21, 1919, 8:30-10:30 a. m.

(Answer ten questions only.)

1. What are the subjective signs of pregnancy?
2. What changes occur in pelvic joints during pregnancy?
3. What are the signs of pregnancy by palpation? by inspection?
4. What should the pulse, temperature and respiration be in a three weeks old infant?
5. What should the pulse, temperature and respiration be in the mother?
6. What are the functions of the placenta?
7. What are the fontanelles?
8. What are the diameters of the cavity of the pelvis and what should they measure?
9. What are the uses of the liquor amnii?
10. Name the internal and external genital organs.
11. What is a "blue baby"?
12. What are the foetal appendages?

New Members

Peters, Chas. E., Oakland, Cal.
Farnsworth, David C., Oakland, Cal.
Smith, Harry J., Oakland, Cal.
Wahrer, Carl W., Sacramento.
Martin, J. P., Stockton.
Kaufman, Bernard, San Francisco.
Leonard, A. T., San Francisco.
Hildreth, H. L., Santa Ysabel.
Bodkin, T. P., San Francisco.
Sewall, R. J., Cartago, Inyo Co.
Dahl, Wm. Z., Sacramento.
von Geldern, C. E., Sacramento.
Thompson, Herbert L., Asuza.
Timme, A. R., Los Angeles.
Sexton, Charles L., Los Angeles.
McCullough, W. A., Los Angeles.
Vallee, J. E., Los Angeles.
Copeland, John C., Los Angeles.
Waggoner, C. Carroll, Los Angeles.
Abbott, John G., Los Angeles.
Kavinoky, Nahum, Los Angeles.
Cooley, Mahlon C., Los Angeles.
Fallas, Roy E., Los Angeles.
Thomas, Roy E., Los Angeles.

Sherry, Leroy B., Pasadena.
Carey, Geo. H., Los Angeles.
Cass, Donald, Los Angeles.
Green, Dwight M., Los Angeles.
Muckleston, Harold S., Los Angeles.
Cummings, R. S., Los Angeles.
McQuarrie, J. G., San Francisco.
Harrington, J. G., San Francisco.
Kruse, F. L., San Francisco.
Baldwin, Margaret, Oakland.
Geddes, Mabel A., Oakland.
Hjelte, Safford G., Oakland.
Berry, Stanley F., Oakland.
Haldeman, F. D., Berkeley.
Adams, W. C., Stockton.
Hurst, Katherine M., Patterson.
Clayes, W. I., San Francisco.
Schloss, Aaron, San Francisco.
Lane, P. H., San Francisco.
Derham, Vincent C., San Francisco.
Kerr, Wm. J., San Francisco.
Reeves, E. W., Salinas.

Transferred

Dr. B. C. Anderson, from San Bernardino Co. to Fresno Co.

Dr. Clifford D. Sweet, from Fresno Co. to Alameda Co.

Deaths

Maggard, W. F. A graduate of College of Physicians and Surgeons, Keokuk, Iowa, 1879. Licensed in California 1880. Died in Corning, Calif., October 21, 1919.

Blodgett, Thos. De Haven. A graduate of Cooper Medical College, San Francisco, 1894. Licensed in California 1895. Died in Tulare, November 10, 1919, of blood poisoning. Was a member of the Medical Society, State of California.

Armstrong, Mary A. A graduate of University of Michigan, 1879. Licensed in California 1897. Formerly lived in Santa Cruz, Calif. Died in Berkeley, November 3, 1919. Was one of the first women physicians in United States.

Burk, George W., Sisson. A graduate of Cooper Medical College, Calif., 1893. Licensed in California 1894. Died in Yreka, Calif., October 24, 1918, of influenza.

Robert, Ernest E. A graduate of Marion Sims Med. Coll., Mo., 1899. Licensed in California 1914. Was killed in Sawtelle, Calif., October 12, 1919. Was a member of the Medical Society, State of California.

Cook, Christian A. A graduate of the Eclectic Medical School, 1876. Died in San Francisco, August 20, 1919.

Congdon, Chas. E., a resident of Jamestown, Calif. A graduate of Med. Dept. University of Kentucky, 1894. Licensed in California 1894. Died in San Francisco, September 6, 1919.

Church, Benj. F. A graduate of College of Physicians and Surgeons, Baltimore, Md., 1888. Licensed in California 1895. Died in Los Angeles, September 4, 1919. Was a member of the Medical Society, State of California.

Smith, A. M. A graduate of College of Medicine, University of Southern California, 1898. Licensed in California 1899. Died in Los Angeles, August 10, 1919.

Troppman, C. M. A graduate of College of Physicians and Surgeons, 1897. Licensed in California 1897. Died in San Francisco, September 20, 1919.

Wood, James Burris. A graduate of Western Pennsylvania Med. College, 1892. Licensed in California 1896. Died in Oakland, September 9, 1919.

Arnold, J. Dennis. A graduate of Washington University, Md., 1876. Licensed in California 1884. Died in San Francisco, September 26, 1919.



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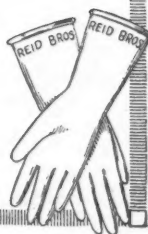


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See "Southern Medical Journal" July, 1919, page 370

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DYSMENORRHEA AND OTHER COLICS

See "The Journal" A. M. A., August 23, 1919, pages 599 and 601
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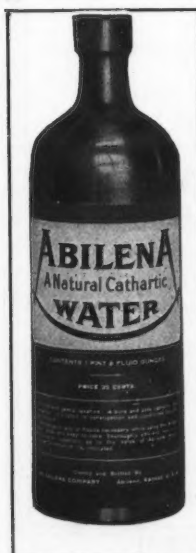


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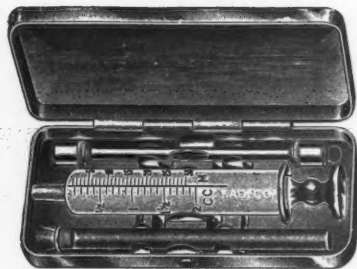
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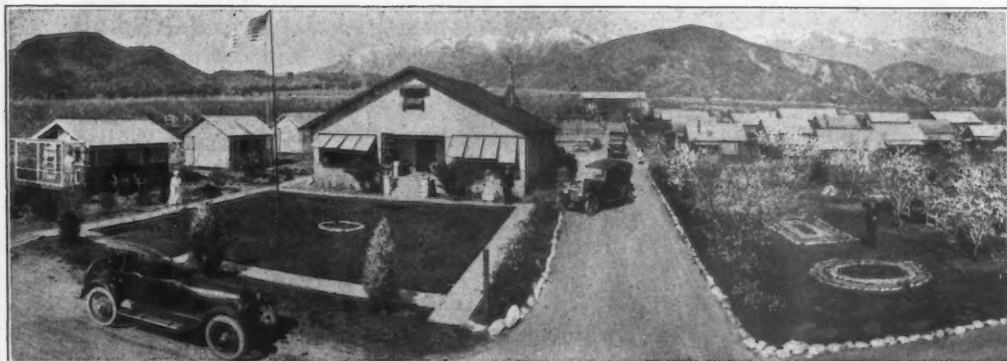
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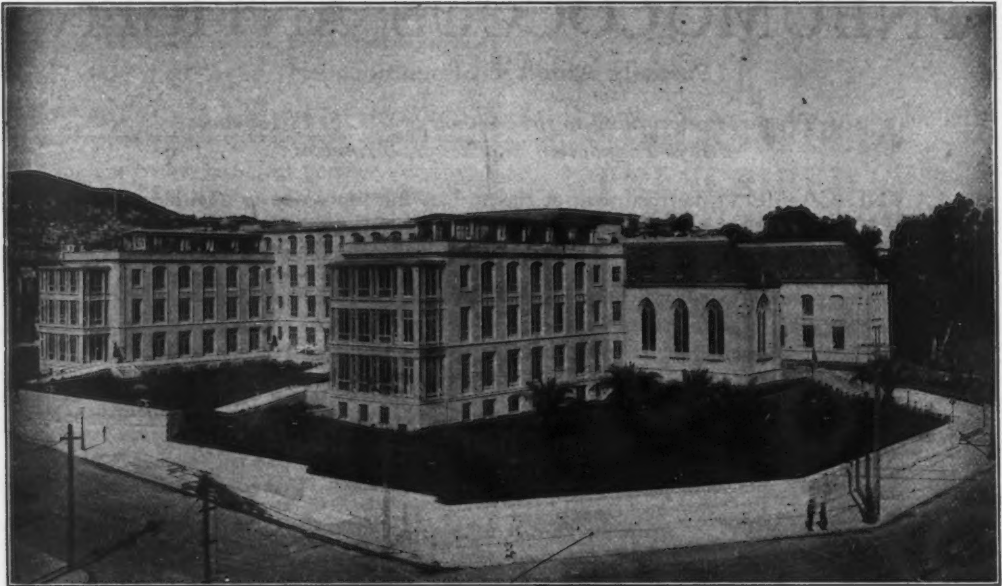
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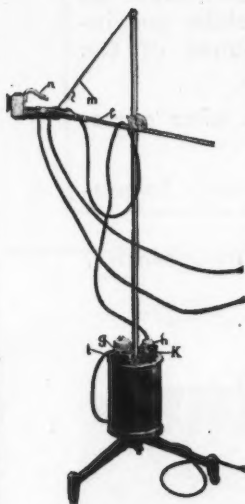
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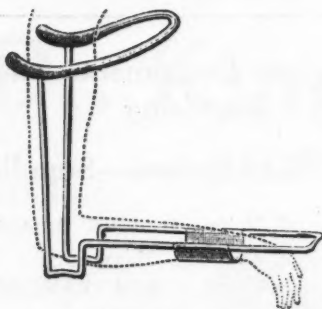
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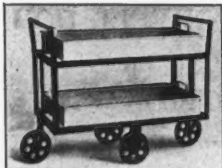
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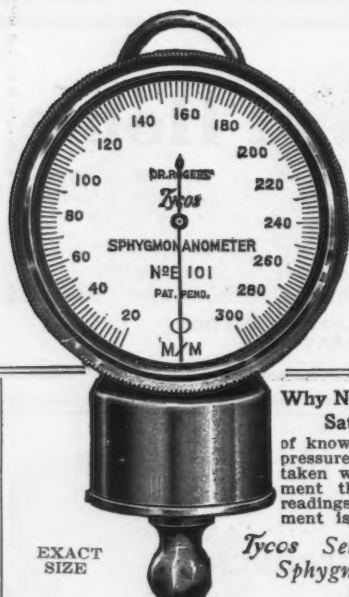
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